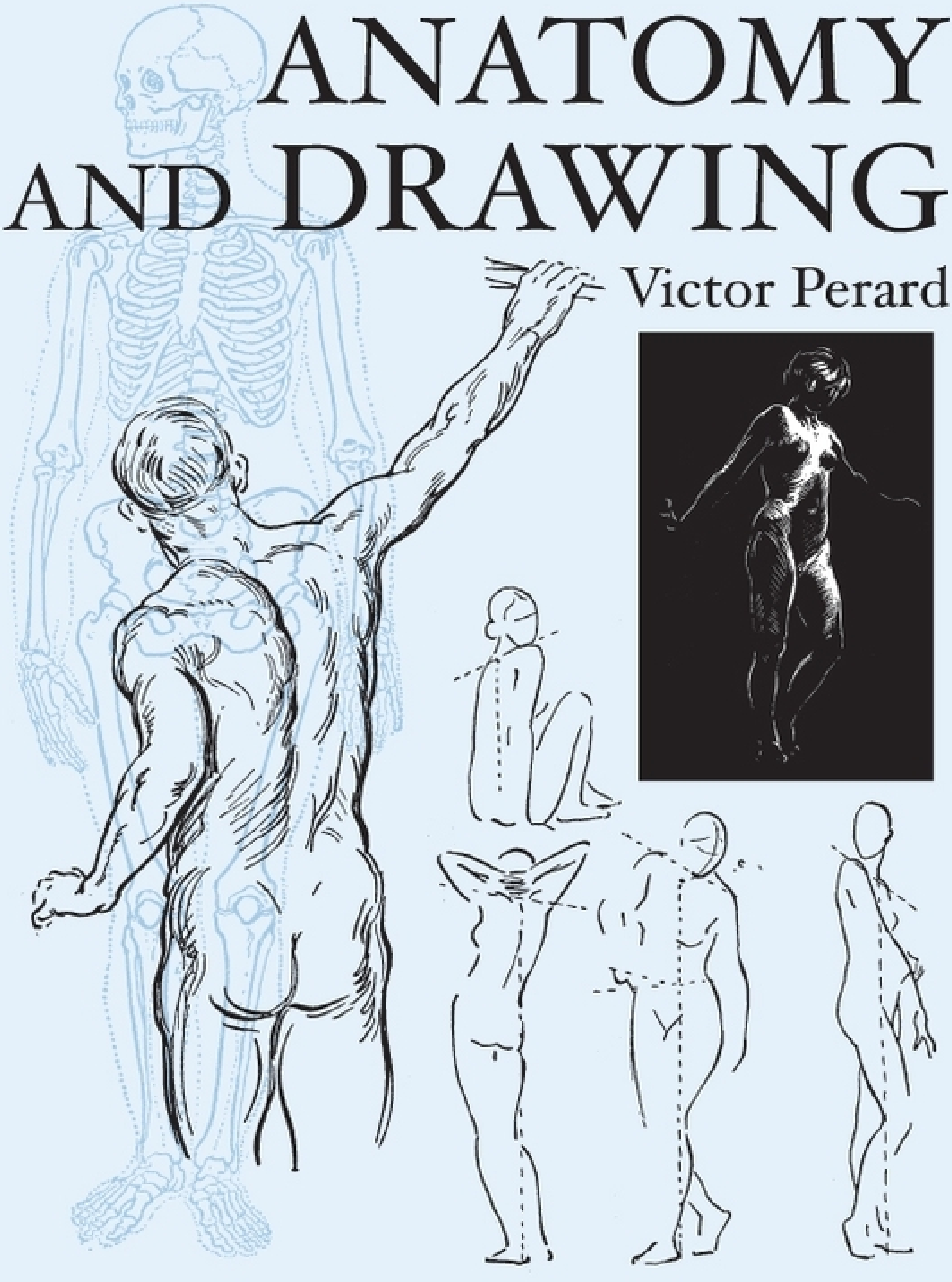
ANATOMY AND DRAWING

Victor Perard



ANATOMY
and
DRAWING

by VICTOR PERARD

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Dedicated to my wife
Ernestine Perard

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PREFACE TO THE FOURTH EDITION

It has long been known that the study of anatomy leads to the appreciation of form and beauty in art. The human figure is particularly rewarding for study. It has simplicity and beauty of form. It is so balanced and proportioned that it can do much with little effort.

For these reasons, human anatomy is taught in schools of fine arts throughout the world.

The student who buys a book on drawing anatomy needs to have this important subject explained to him as simply as possible.

This Fourth Edition of ANATOMY AND DRAWING, including new material on the muscles, has been prepared from this point of view. The human figure is presented in a series of simple diagrams from which all but the necessary naming of parts and actions, has been stripped. The wording is printed in clear juxtaposition to the identified body parts. Skeleton figures or quick body sketches demonstrate actions.

Throughout the book, I have kept the text to the essential minimum and have adhered to the wisdom of the saying, “One picture is worth a thousand words.”

SEPTEMBER I955

VICTOR PERARD

PREFACE TO THE THIRD EDITION

The purpose of this book is to present in a simple and direct manner the subject of anatomy as it is applied to Art. As little text as possible has been used, and much dependence has been placed on pictorial representations because the latter are a more direct means of impressing the artist with construction and form. For this reason this work has been copiously illustrated, often showing various views of the same structures and actions.

To the beginner the study of anatomy is too often dull, prosaic and difficult and this is due, in large part, to the fact that many text books on the subject contain insufficient descriptive drawings. Even though the student plows through many pages of text, he often fails to visualize the subject properly. Therefore it has been endeavored to substitute illustrations for descriptive text whenever practical. The drawings have been arranged in groups for the purpose of comparison, and in this way the eye becomes accustomed to observe much which otherwise might escape attention.

Preface

To express outward form correctly requires a knowledge of the internal structure, that is, of the bones which compose the framework and define its proportions and of the muscles and tendons which direct its action.

Every figure artist finds sooner or later, as he advances in his artistic career, that his work needs strengthening through a well grounded knowledge of anatomy. The great masters of the past realized this and their grasp on the fundamentals of anatomy is reflected not only in their finished works, but in such of their preliminary sketches as are still preserved.

The ability to construct figures correctly from the imagination rather than to depend entirely on models is a distinct aid to the draftsman and to the sculptor. The student of anatomy should therefore test his skill by making memory drawings and by applying his knowledge to compositions of his own fancy.

When working from living models, the artist will find that his knowledge of anatomy will enable him to analyze and interpret the forms before him in a more understanding way than he could without such information. It will develop in him greater powers of observation. An understanding of anatomy is an instrument in the mechanics of Art: a means to be employed to assist but never allowed to dominate. The artist must learn properly to evaluate his anatomical information and to know the part it is to play in the development of his art. The studies he makes will then be done more intelligently and with better draftsmanship as an inevitable result.

VICTOR PERARD

NOTES ON PROPORTION

Since proportion is the comparative relation of one thing to another, some standard or unit of measure must arbitrarily be established. In Art, this unit is known as the “head” which is the distance from the top of the skull to the tip of the chin. The illustrations in this book are based on the proportion of seven and a half “heads” to the height of an erect figure. The use of this standard will obviate much descriptive text. It is well, however, to bear in mind that this standard of proportion is modified by such elements as race, sex, age and physical differences peculiar to the individual. For this reason the following notes on proportion are grouped under the heads: Male, Female, Children and General Observations.

Proportions of the Male. The greatest width of the male figure is at the deltoids, a little below the shoulders and the width here is about two heads.

The width between the hips should equal one and one half heads, and the width between the nipples one head.

The height of the figure, seven and one-half heads, should approximate one “head” for the head, two and three-quarter heads for the neck and trunk, and three and three-quarter heads for the lower extremities.

From the finger tips to the elbow should measure two heads.

Proportions o the Fervzale. The bones of the female are shorter and have less rough surfaces than those of the male. The sternum or breast bone is shorter and more curved and the pelvis is broader and shallower which gives a greater width to the hips. The sacrum is wider and projects at an angle backward.

The posterior superior iliac spines and the anterior iliac spines are further apart than those of the male. The distance from the rib cage to the pelvis is greater due to the shallower and broader pelvis.

There is less distance from the crest of the iliacs to the great trochanters of the hips, because the anterior iliac spines are spread out and lower, and further apart. In the female figure the Poupart’s ligaments and the furrow of the groin are more horizontal.

The shoulders are narrower and the collar bones (clavicles) straighter and shorter thus giving a more graceful and longer neck and more sloping shoulders in comparison with the square shoulders of the male.

The arms are shorter in proportion to the trunk which is due to the shorter humerus bone of the female, and because the humerus bone is shorter, the elbow is higher.

Variations in the length of the female leg are more frequent than those of the trunk and so it is more difficult to judge the height of the female figure when seated. But the length of the torso is proportionately longer than in the other sex. The legs are shorter and the skull smaller.

The center of the female figure is above the pubic bone while in the male, the center is about at the pubic bone. The width of the female hips is about the width of the chest wall plus that of one arm and is greater than that of the male of the same height. The fact that the female sacrum is at a greater angle than that of the male and that there is more fat on the buttocks gives these a greater diameter.

The female abdomen, is more rounded and the thighs are thicker from the back to the front than in the other sex.

Proportions *of* Children. The child of three is about one half the height of the adult, and at ten, about three-quarters the height of the adult. As the child grows older the relative sizes of the head and the trunk change. At twenty-five the figure is full grown.

At birth the center of the figure is a little above the navel, at two years at the navel and at three years the center is level with the iliac bone.

With advancing age this point gradually lowers depending to a great extent on the length of the legs.

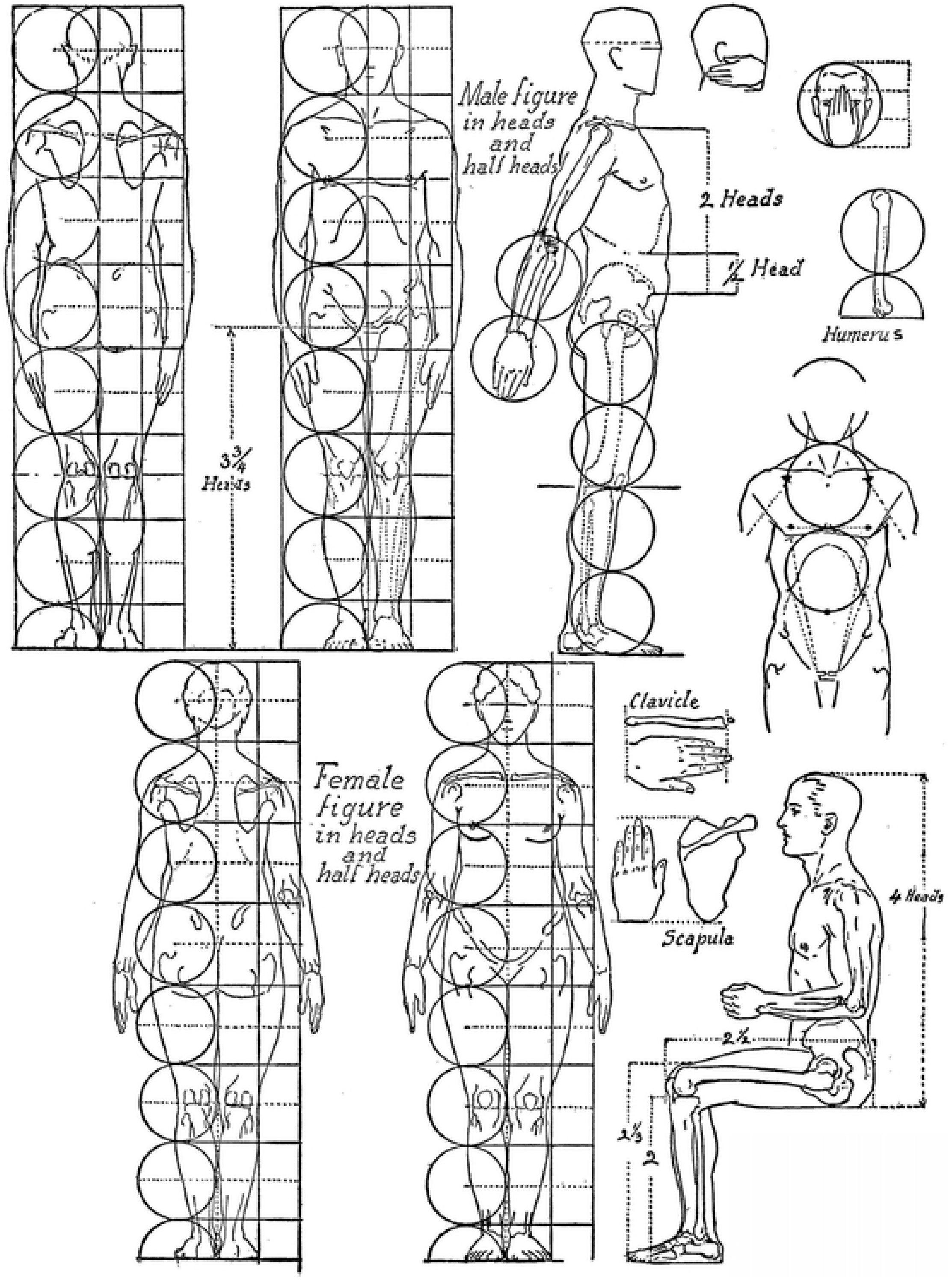
General Observations. The clavicle bone continues to grow for a considerable period after the other bones of the body have attained their full development and therefore the shoulders are said to broaden.

Only very tall people have a height of eight heads. Short people are seven heads or less. The muscles of the adult account for about one half the weight of the body.

The skeleton always provides the proportions of the figure with slight allowances for the padding between the joints, between each vertebra, and under the heel and foot. In old age the figure shortens due to the hardening and shrinking of the cartilages between the bones.

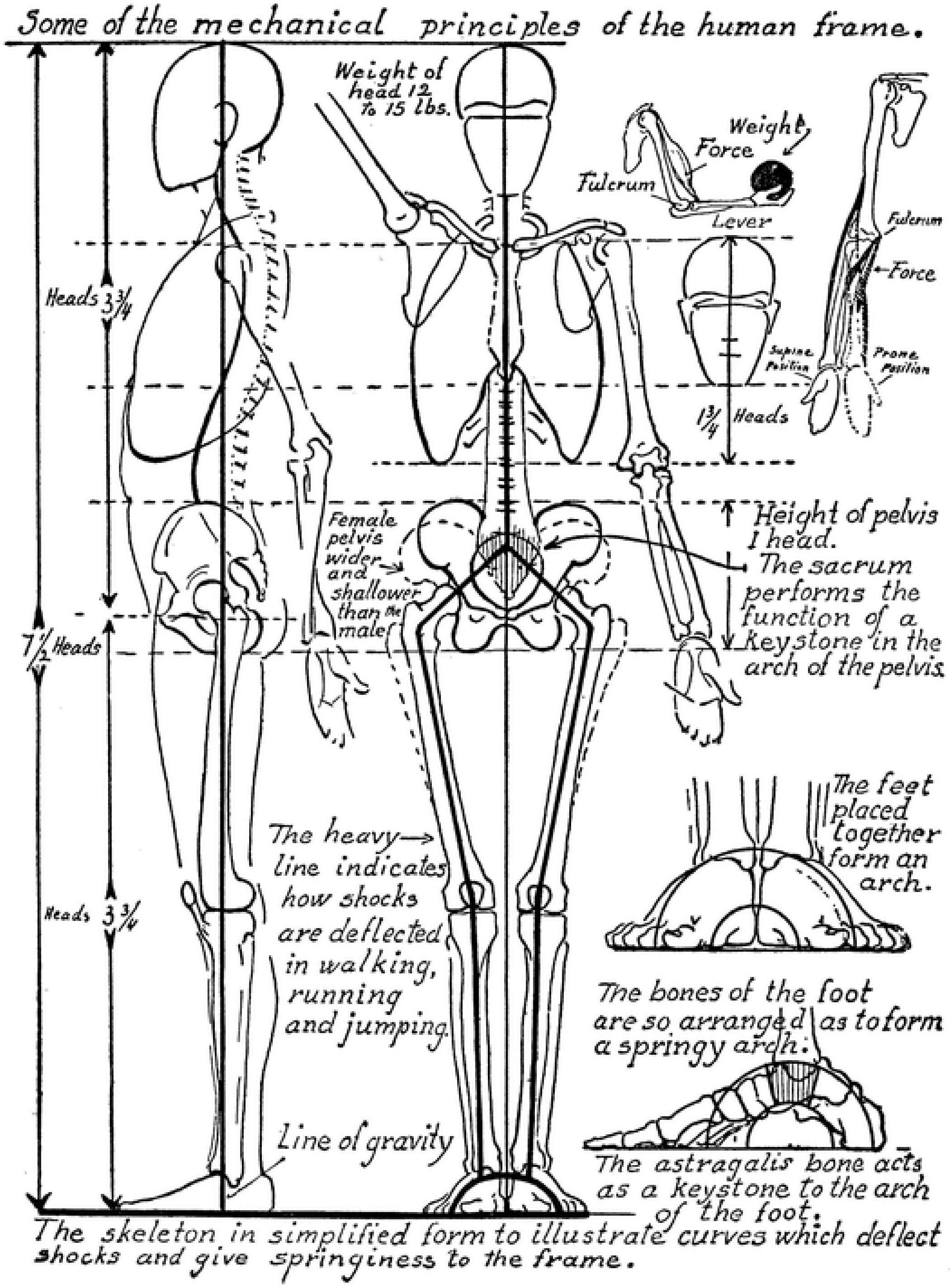
PART ONE

PROPORTION and DRAWING

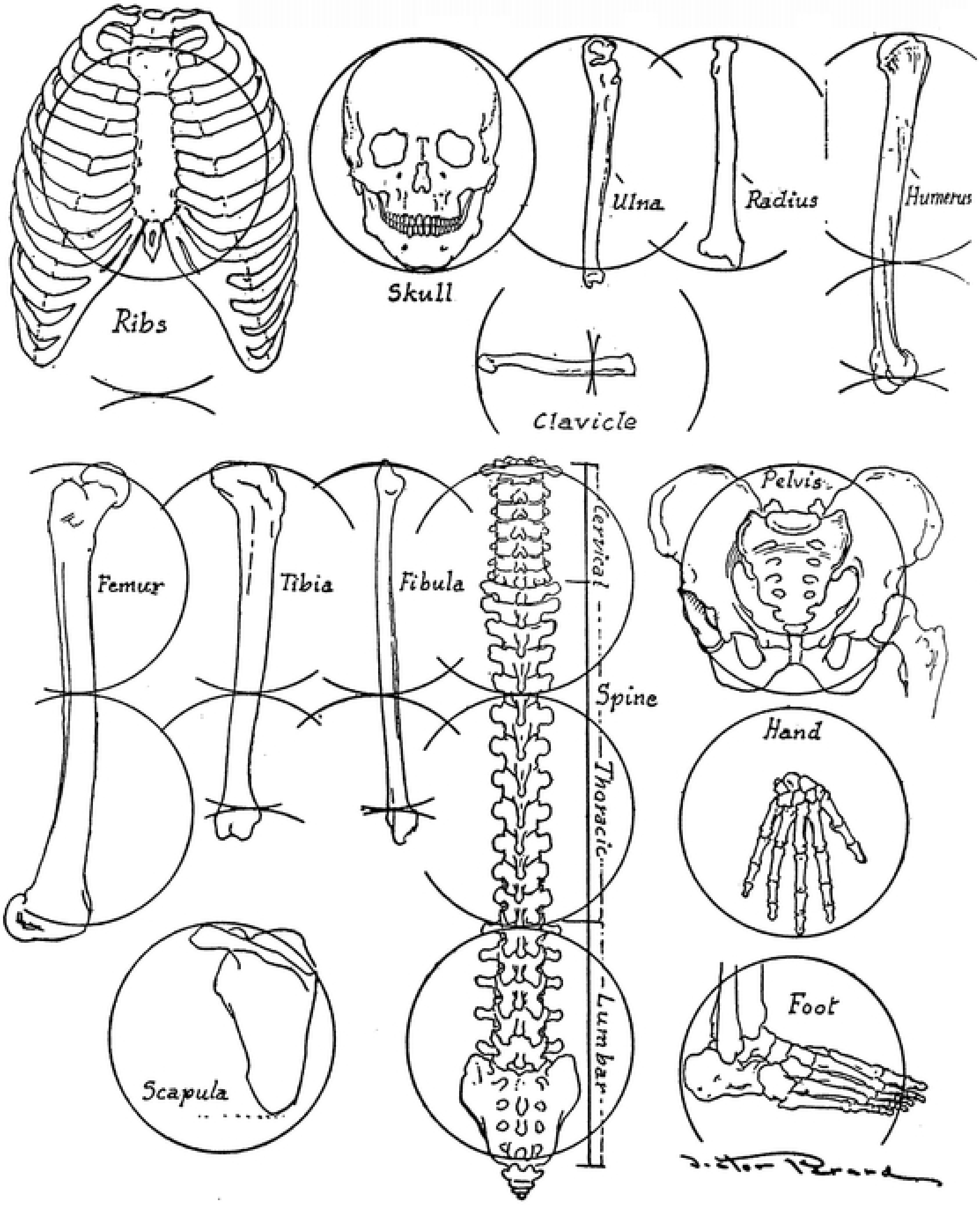

Male figure
in heads
and
half heads
2 Heads
½ Head
Humerus
3¾ Heads
Female
figure
in heads
and
half heads
Clavicle
Scapula
4 Heads
2½
2⅓
2

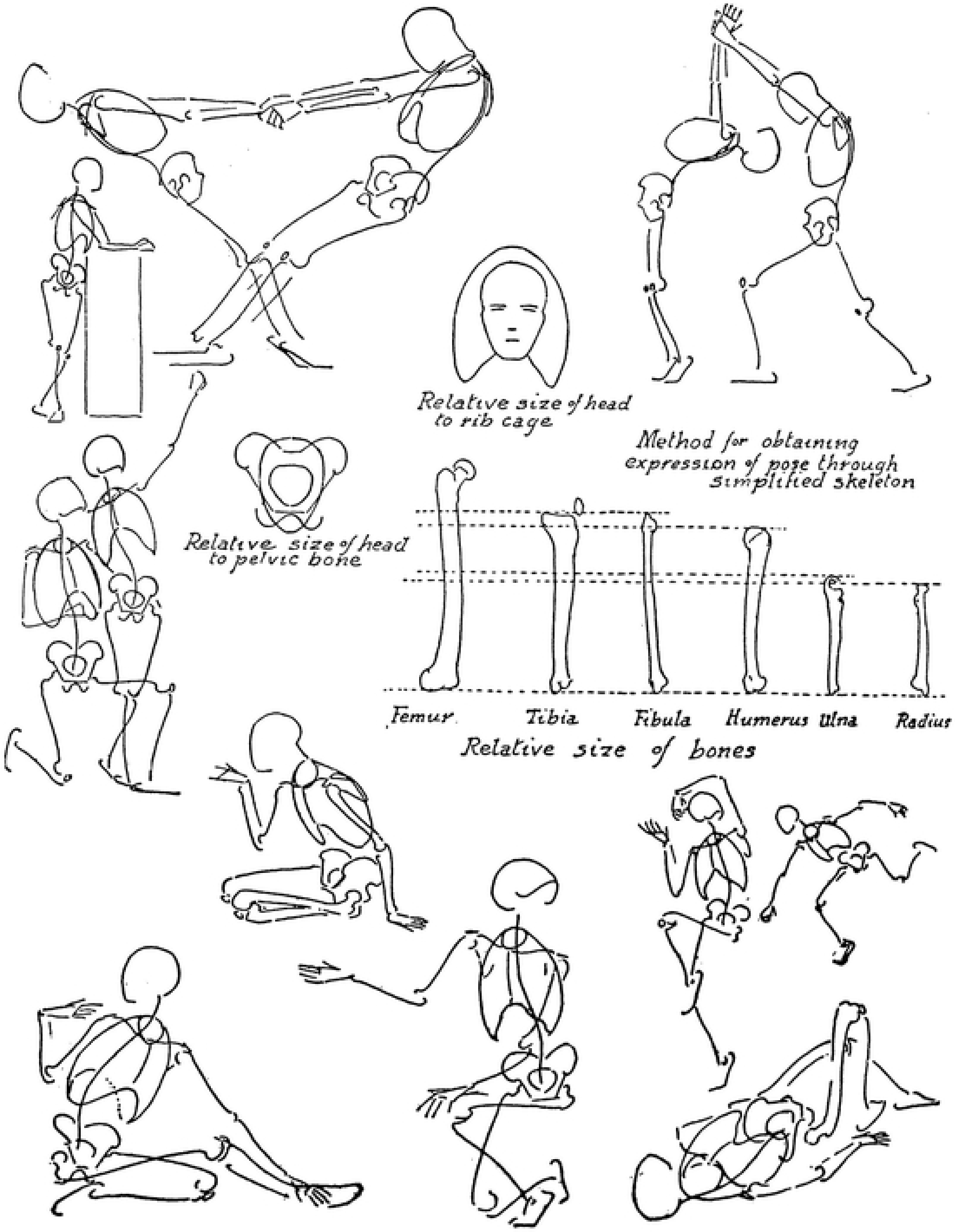
RELATIVE PROPORTION

Some of the mechanical principles of the human frame.


Some of the mechanical principles of the human frame.
Weight of head 12 To 15 lbs.
Weight
Force
Fulcrum
Lever
Fulcrum
Force
Supine Position
Prone Position
Heads 3 3/4
1 3/4 Heads
Height of pelvis 1 head.
The sacrum performs the function of a Keystone in the arch of the pelvis.
Female pelvis wider and shallower than the male
7 1/2 Heads
Heads 3 3/4
The feet placed together form an arch.
The heavy line indicates how shocks are deflected in walking, running and jumping.
The bones of the foot are so arranged as to form a springy arch.
Line of gravity
The astragalis bone acts as a keystone to the arch of the foot.
The skeleton in simplified form to illustrate curves which deflect shocks and give springiness to the frame.

Relative proportion of bones by heads


Ribs
Skull
Ulna
Radius
Humerus
Clavicle
Femur
Tibia
Fibula
Cervical
Spine
Thoracic
Lumbar
Pelvis
Hand
Foot
Scapula

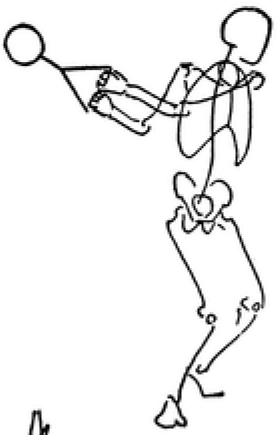

Femur
Tibia
Fibula
Humerus
Ulna
Radius

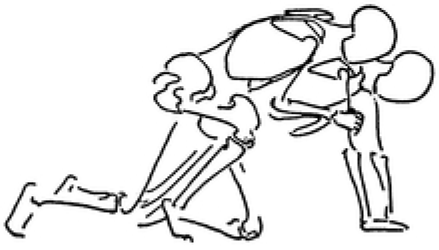
Relative size of head to rib cage

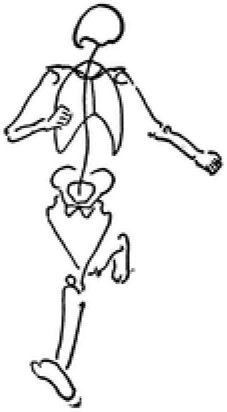
Method for obtaining expression of pose through simplified skeleton

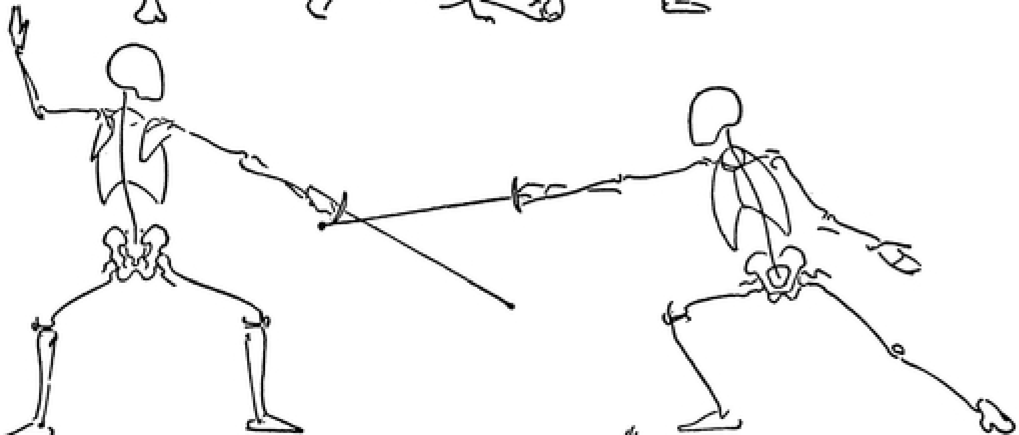
Relative size of head to pelvic bone

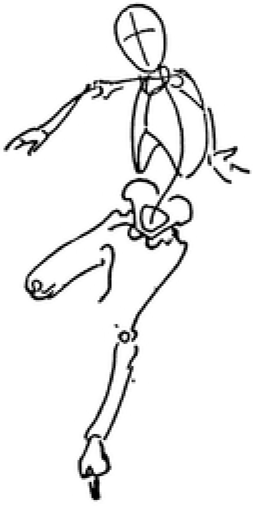
Relative size of bones

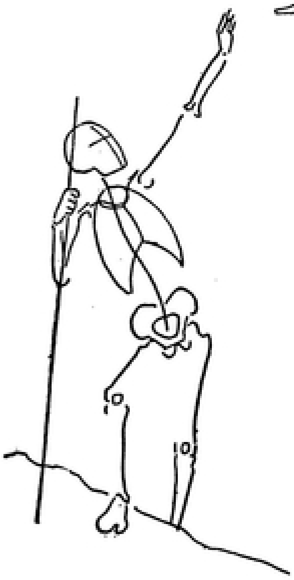


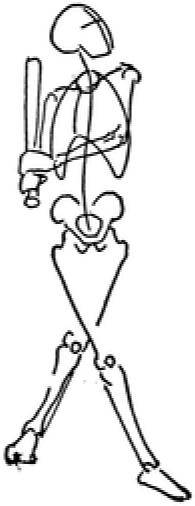


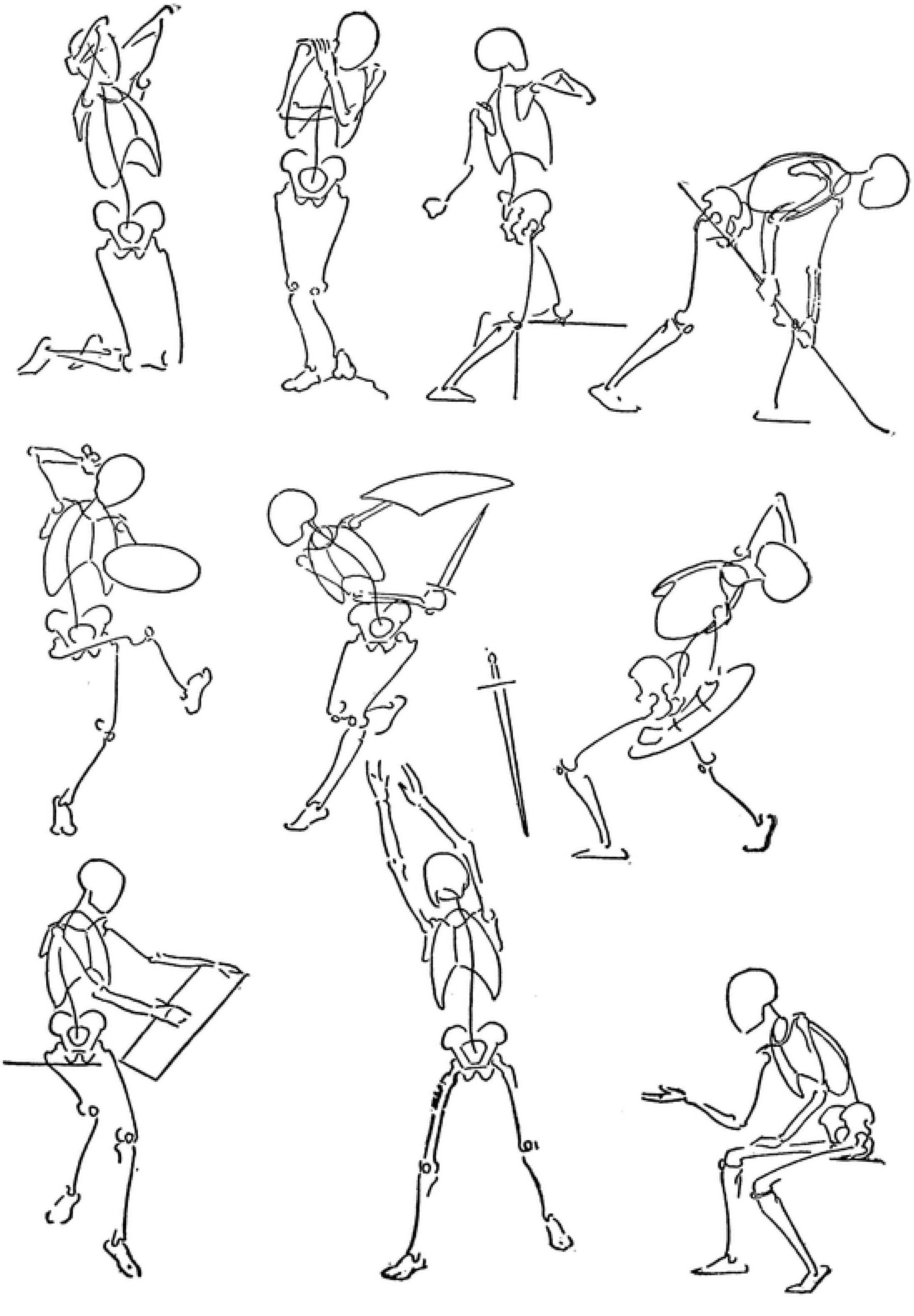


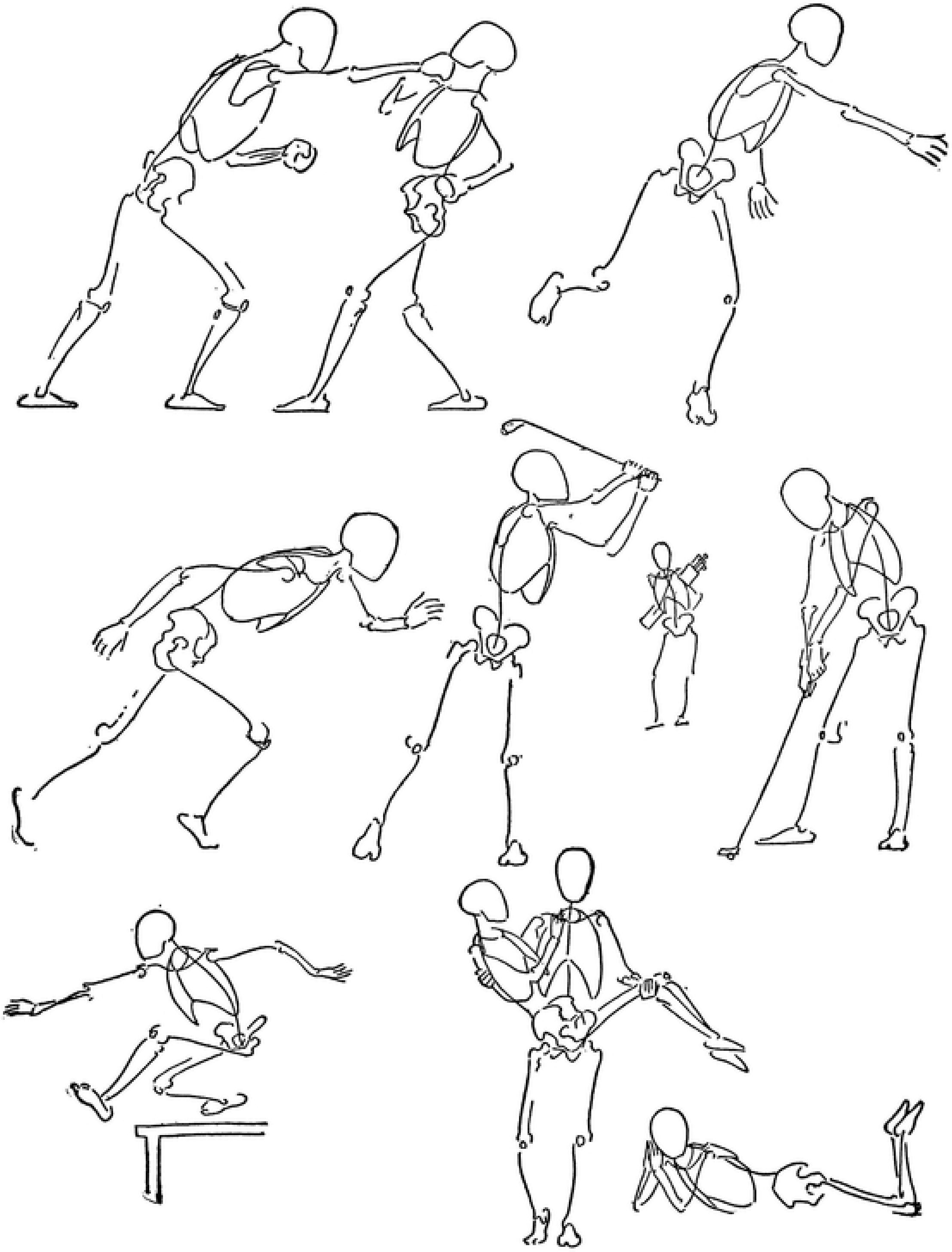


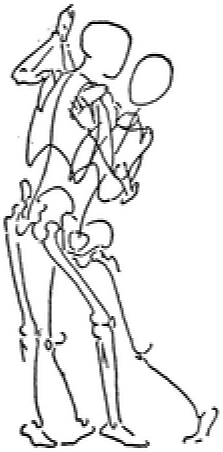
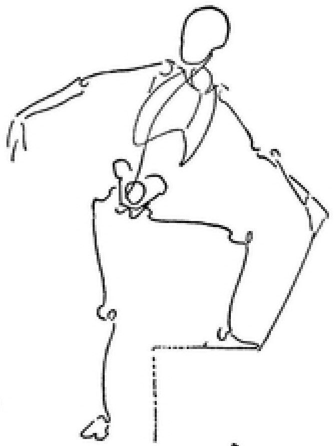
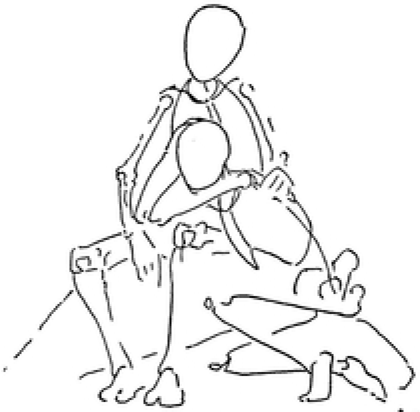
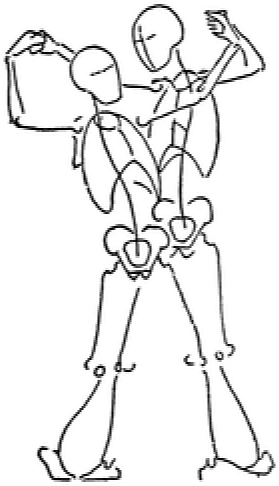
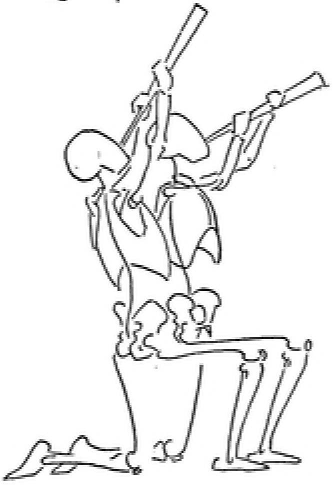
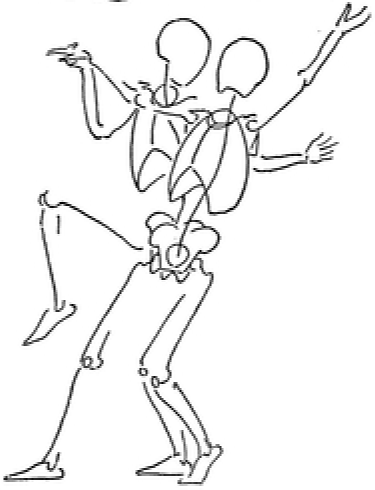
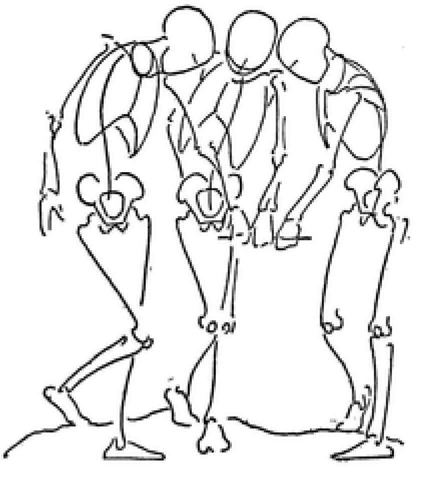
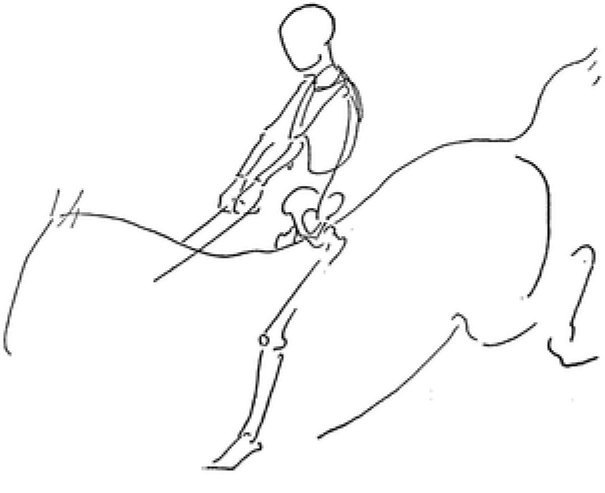


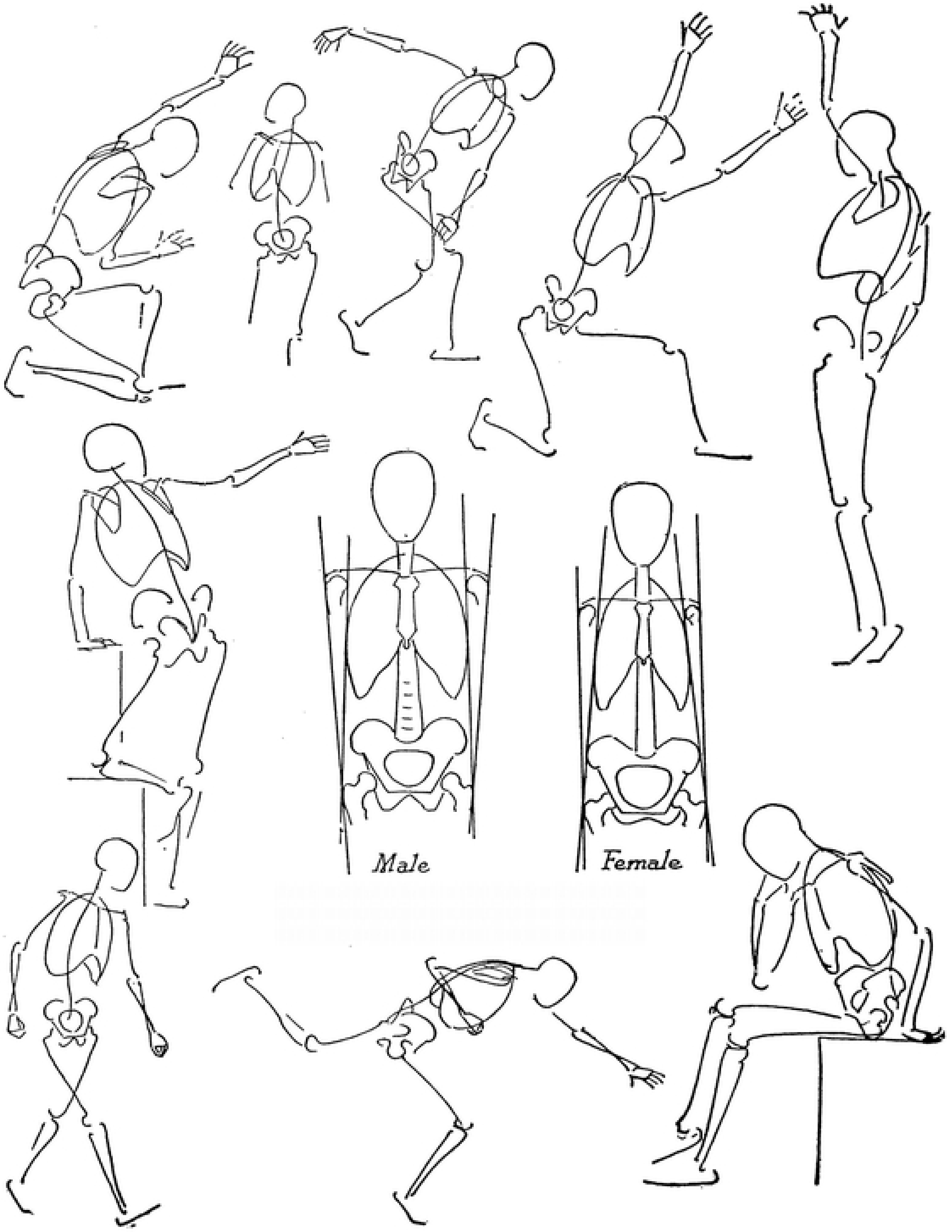









Male
Female

Expressing action by simplified skeleton

METHOD OF DRAWING

From Life or from the Cast

1. Find the center of the paper by drawing lines from corner to corner. This is done to help center the study.
2. Measure with the eye or pencil to find the center of the subject and make a line at that point as related to the center of the paper.

   Draw a line at the head and another at the feet.

   With free lines search for the rhythm of the pose, to help visualize the figure and to place it on the paper the size intended.

   Draw lightly so that the mental impression of the figure is not obliterated by a heavy drawing, and corrections can be easily made.
3. Decide where the pit of the neck should be placed and draw a perpendicular line from this point (if a front view) to the feet. If a back view, draw the perpendicular line from the seventh cervical vertebra to the feet.

   Find the line of the shoulders, giving the angle of their positions.

   If a standing figure, first draw the leg on which there is most weight, to obtain the proper balance of the figure.
4. Give the line showing the angle of the position of the pelvis.

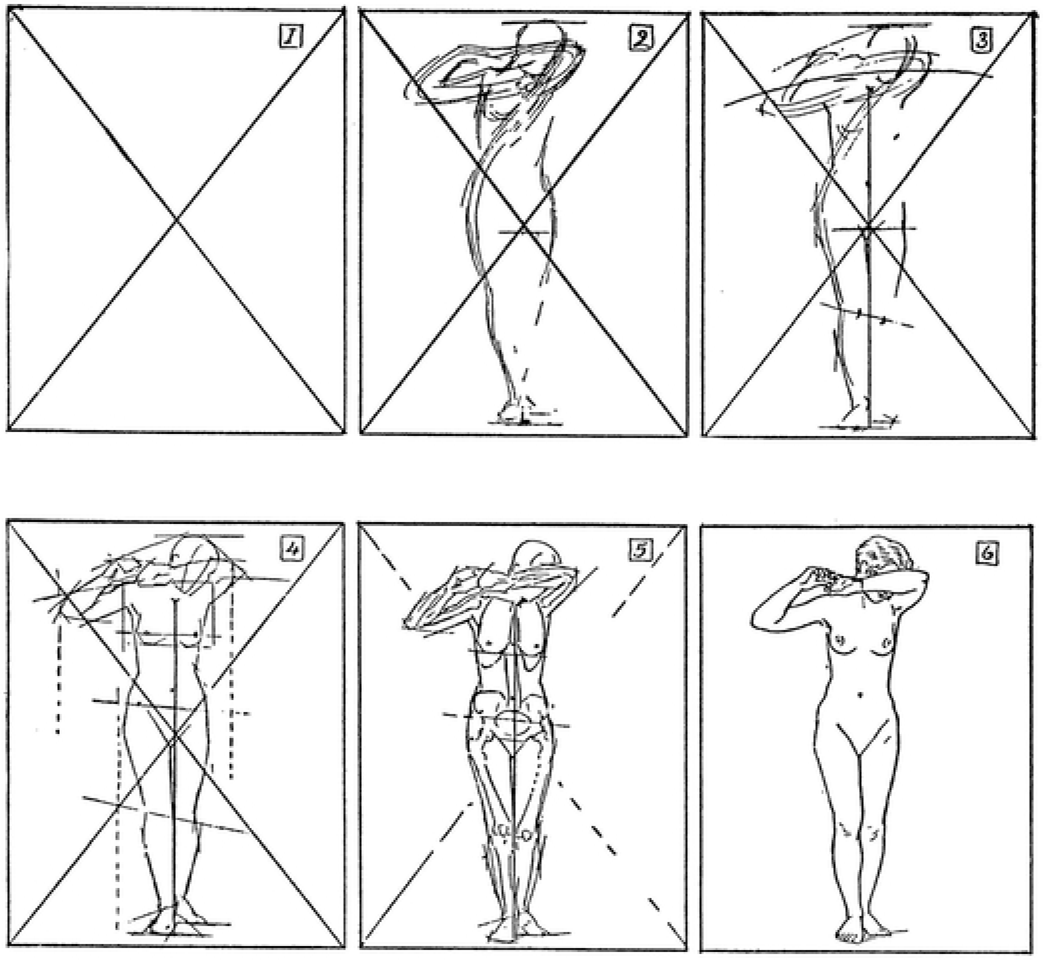
   Indicate a line through the knee-caps. Draw the torso, indicating its bulk, marking the width of shoulders, hips, neck and head. Block with straight lines going beyond the intersections to obtain a better idea of the direction of line and to avoid a cramped feeling.
5. Sketch within the lines a simplified skeleton, to check up on position of joints and bulk of chest. (Refer to pages on proportion.)

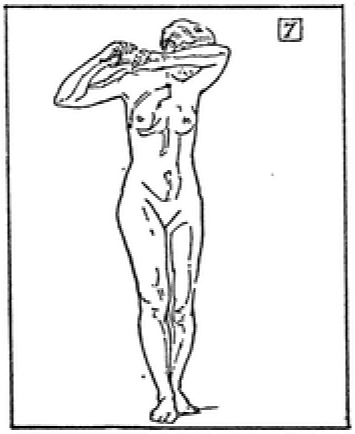
   See that the pit of the neck, the pubic bone, the navel, the pelvis, the knee-caps and the inner ankles are in proper relation to each other.

Compare relative sizes of head to bulk of torso, hands to face, feet to hands, arms to legs, and thickness of the neck to that of the head, leg and arm.

6. Go over the outline, perfecting it, searching for character and for grace of line.
7. Indicate the outline of the planes and of the principal shadows.
8. Fill in the planes in large surfaces, and connect the shadows as much as possible.
9. Without losing their mass, model the planes keeping well in mind the direction of light.

In drawing the head, decide on the bulk and draw in the planes of the ace (see Part III) , then the eyes, the mouth and the nose last. It is easier to fit a head on a figure, than to fit a figure to a head.

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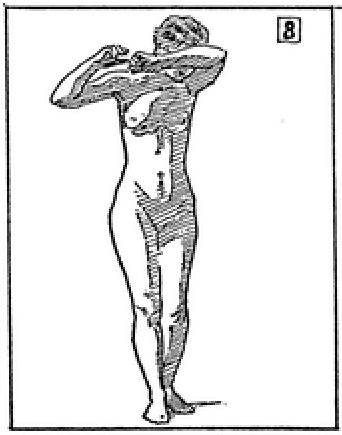
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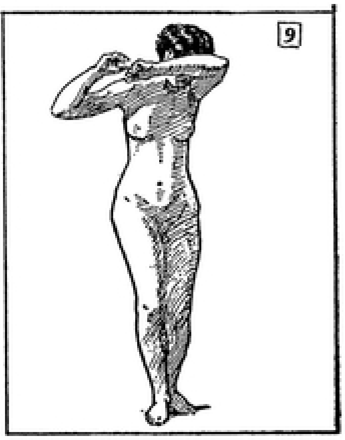
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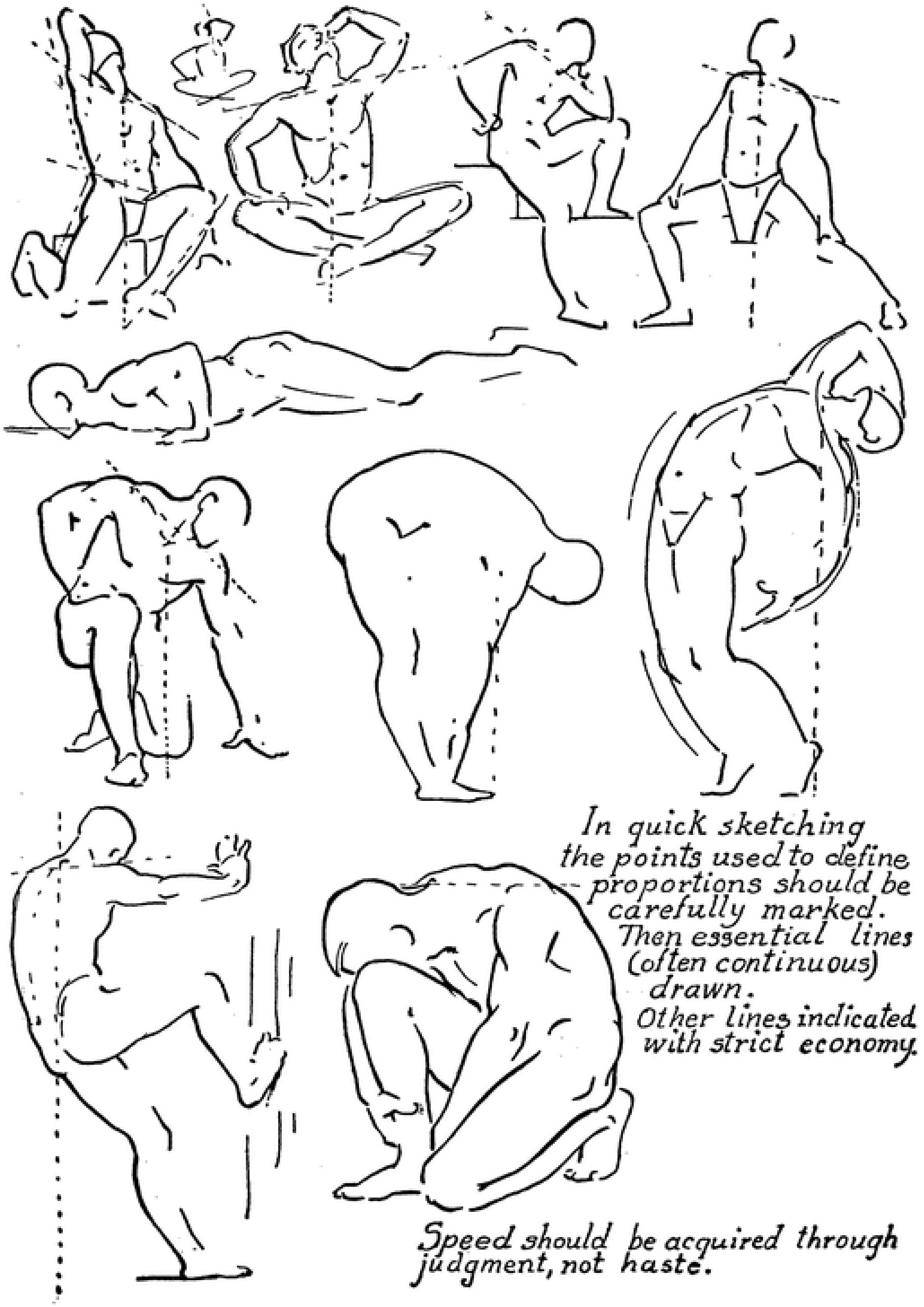
In quick sketching the points used to define proportions should be carefully marked. Then essential lines (often continuous) drawn. Other lines indicated with strict economy.
Speed should be acquired through judgment, not haste.

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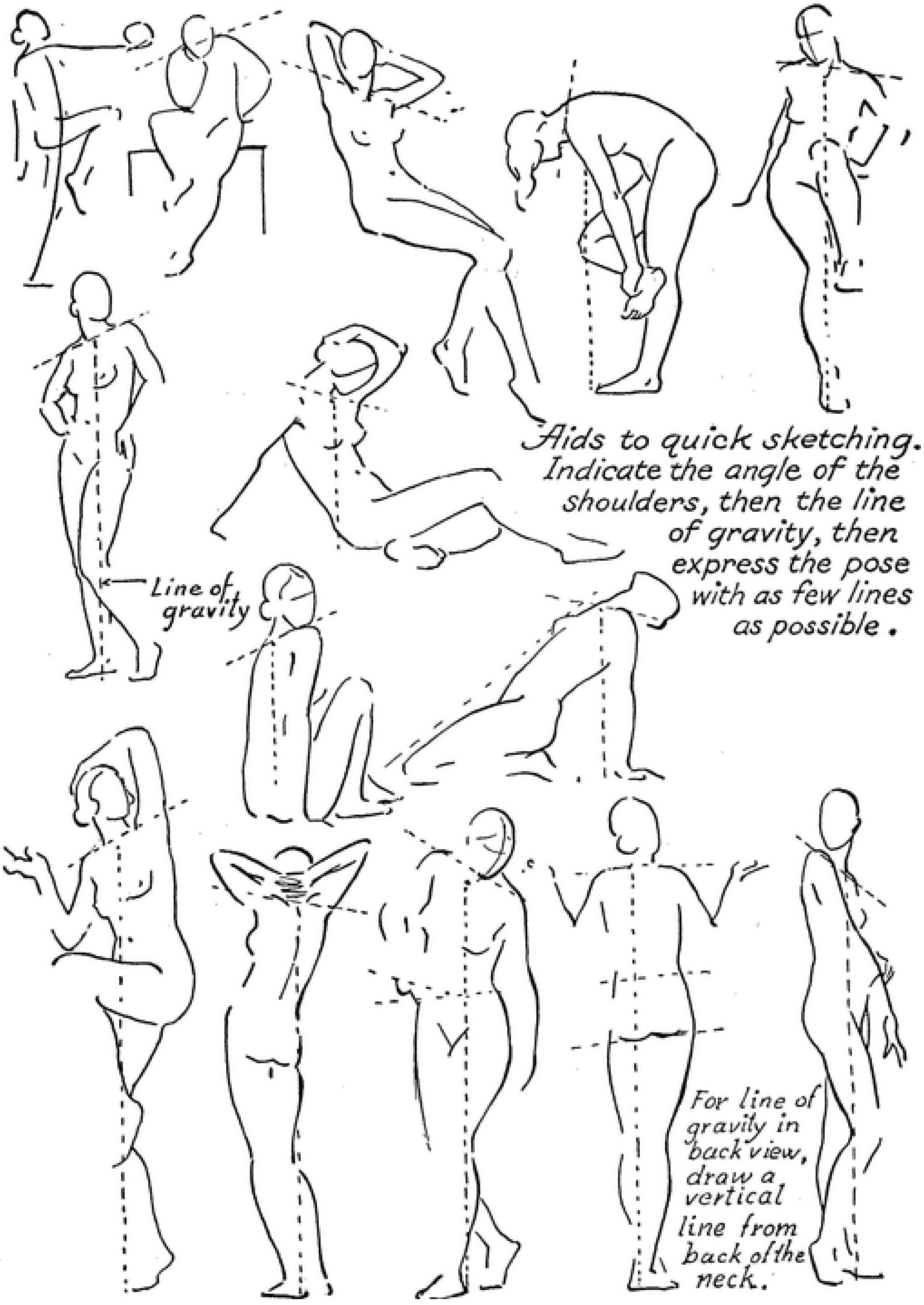
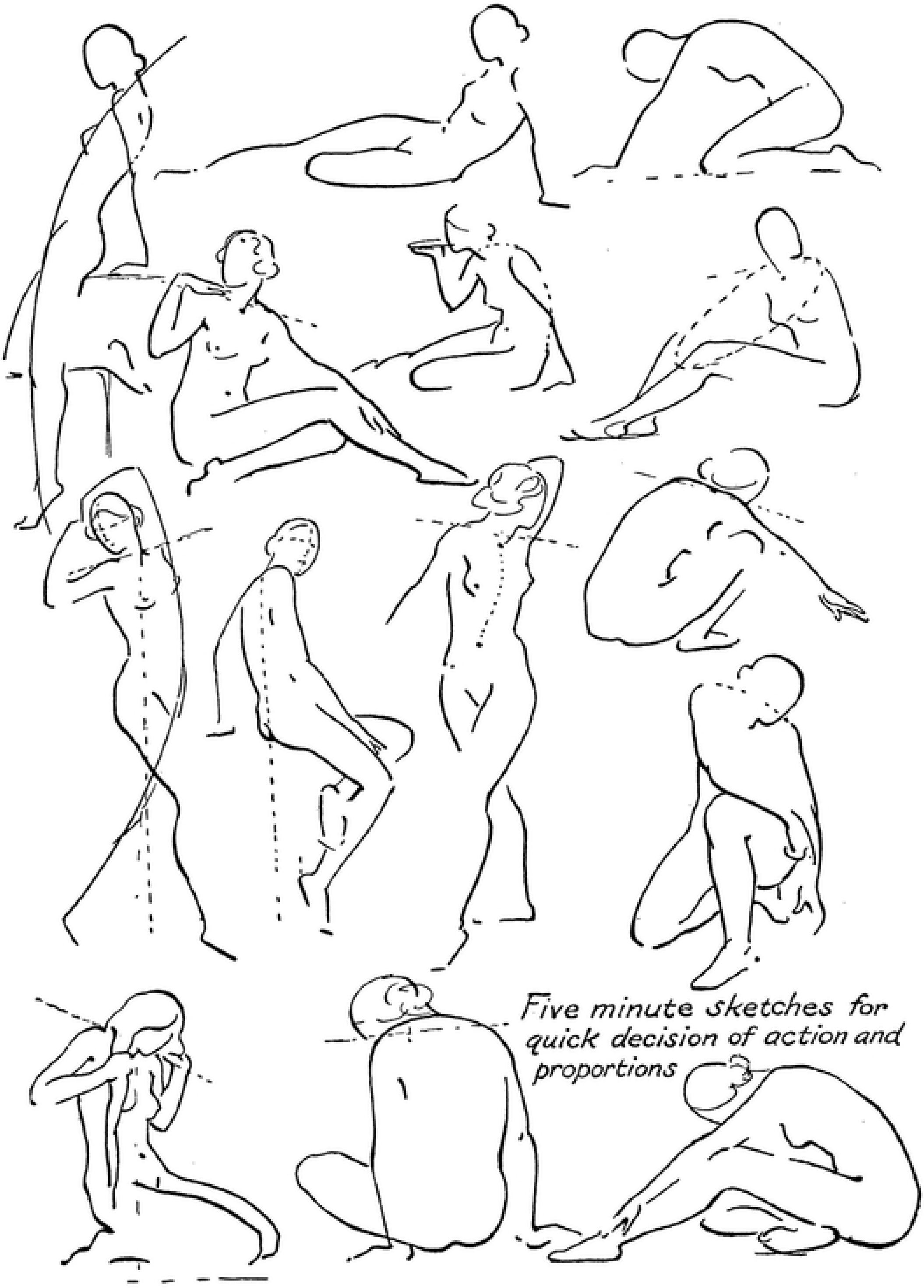
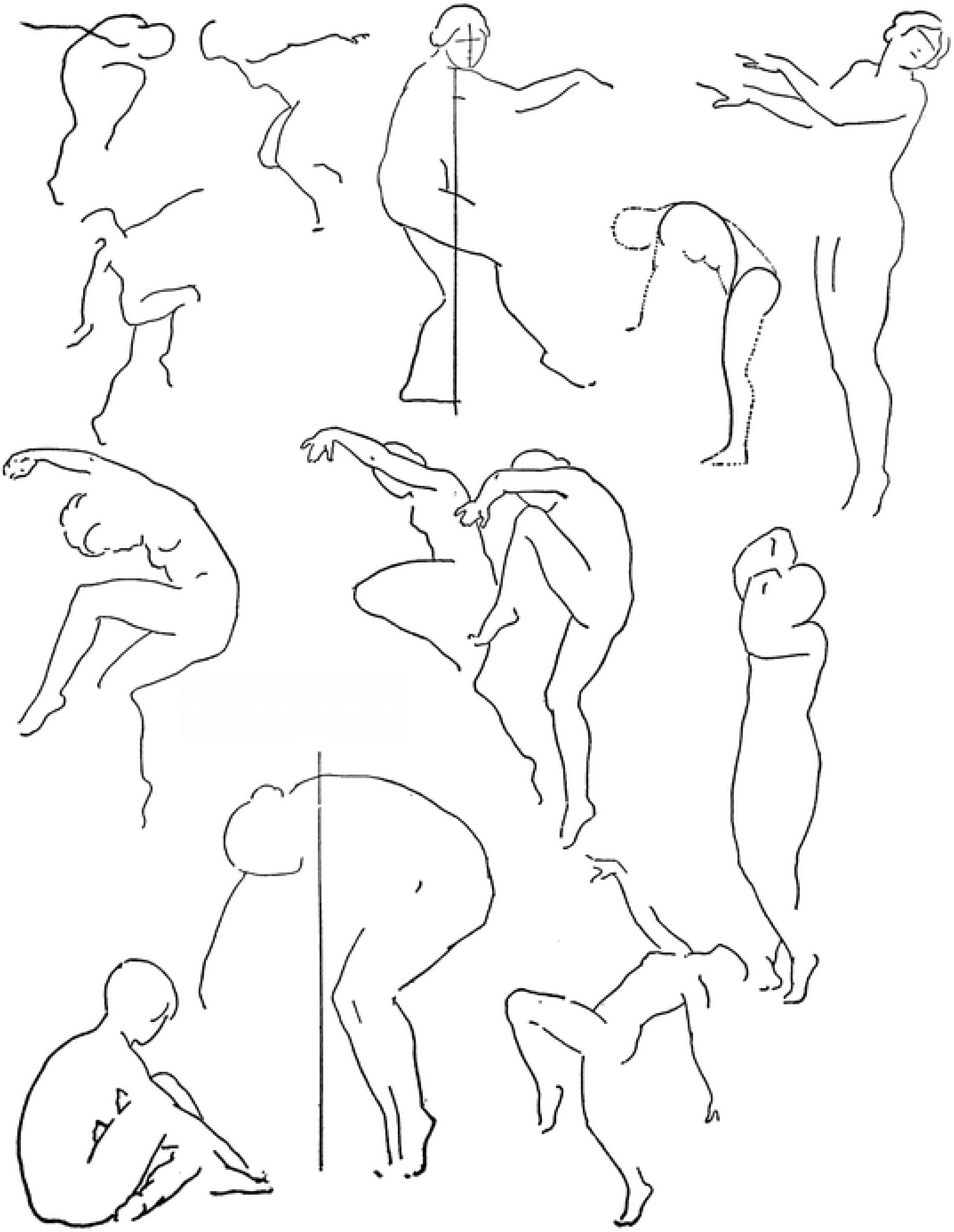

Aids to quick sketching. Indicate the angle of the shoulders, then the line of gravity, then express the pose with as few lines as possible.
Line of gravity
For line of gravity in back view, draw a vertical line from back of the neck.

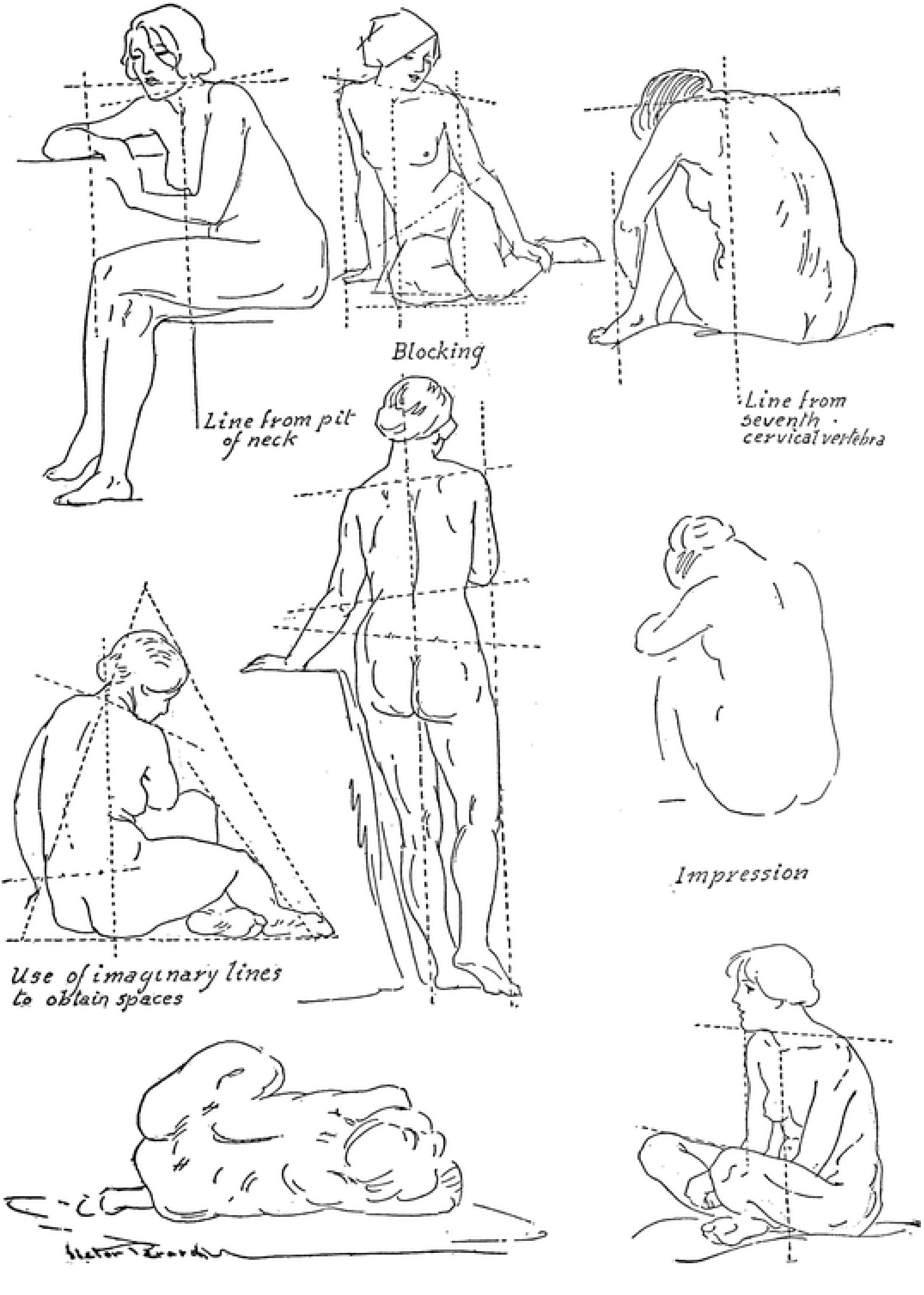
Aids to quick sketching Indicate the angle of the shoulders, then the line of gravity, then express the pose with as few lines as possible .


Five minute sketches for
quick decision of action and
proportions

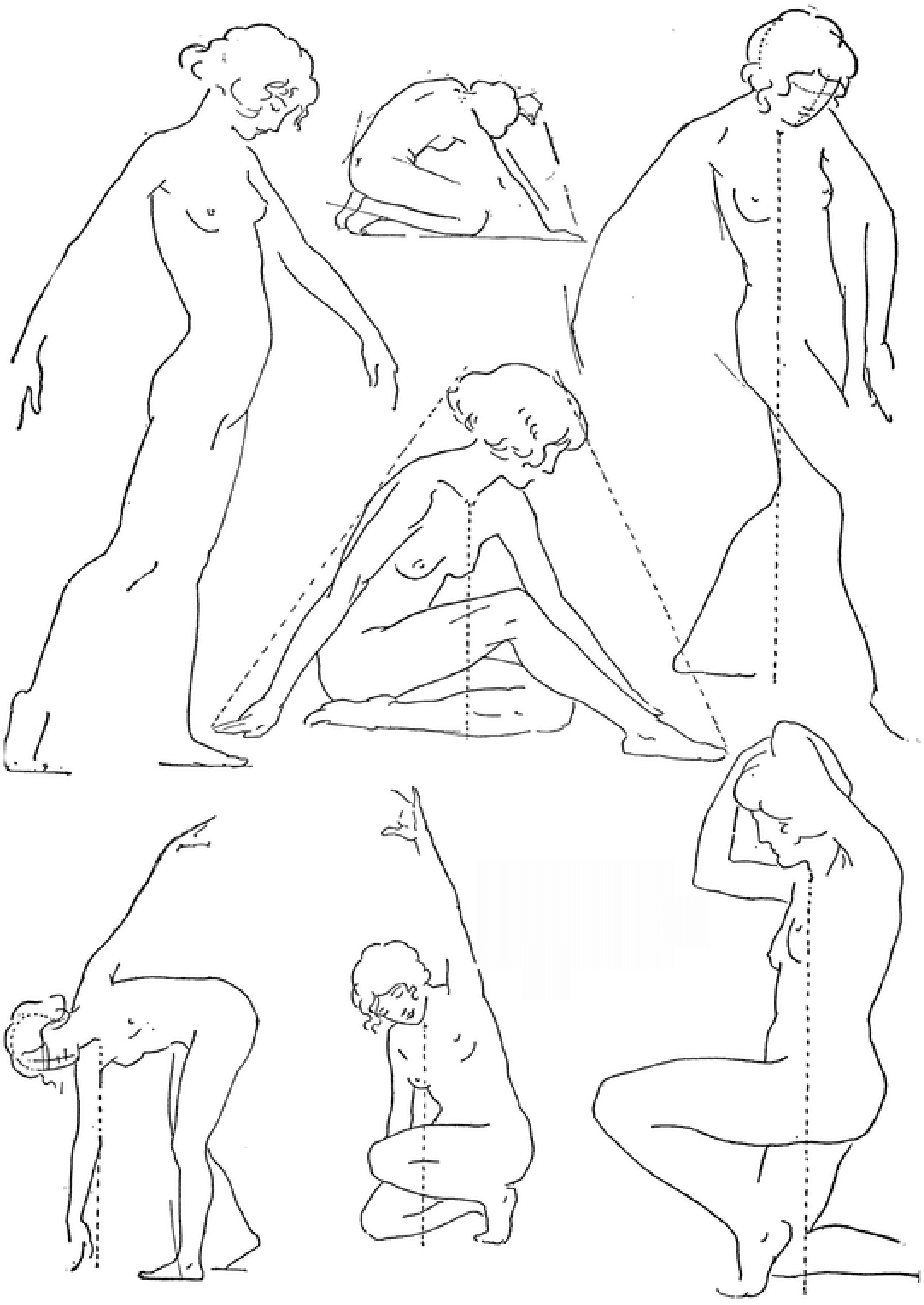
Five minute sketches for quick decision of action and I proportions



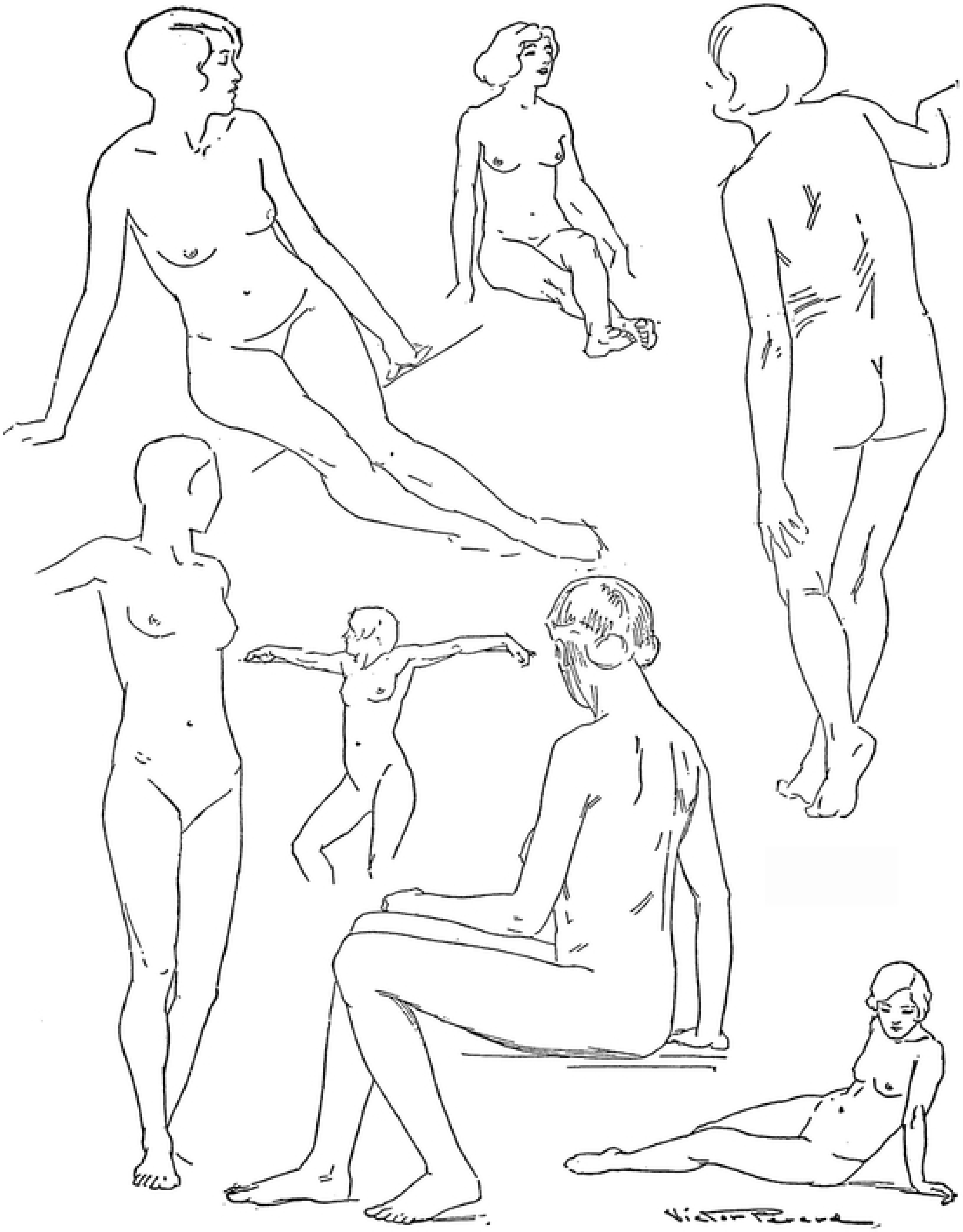
Studies of economy of line


Line from pit of neck
Blocking
Line from seventh cervical vertebra
Impression
Use of imaginary lines to obtain spaces

Impression



Studies for the value and economy of line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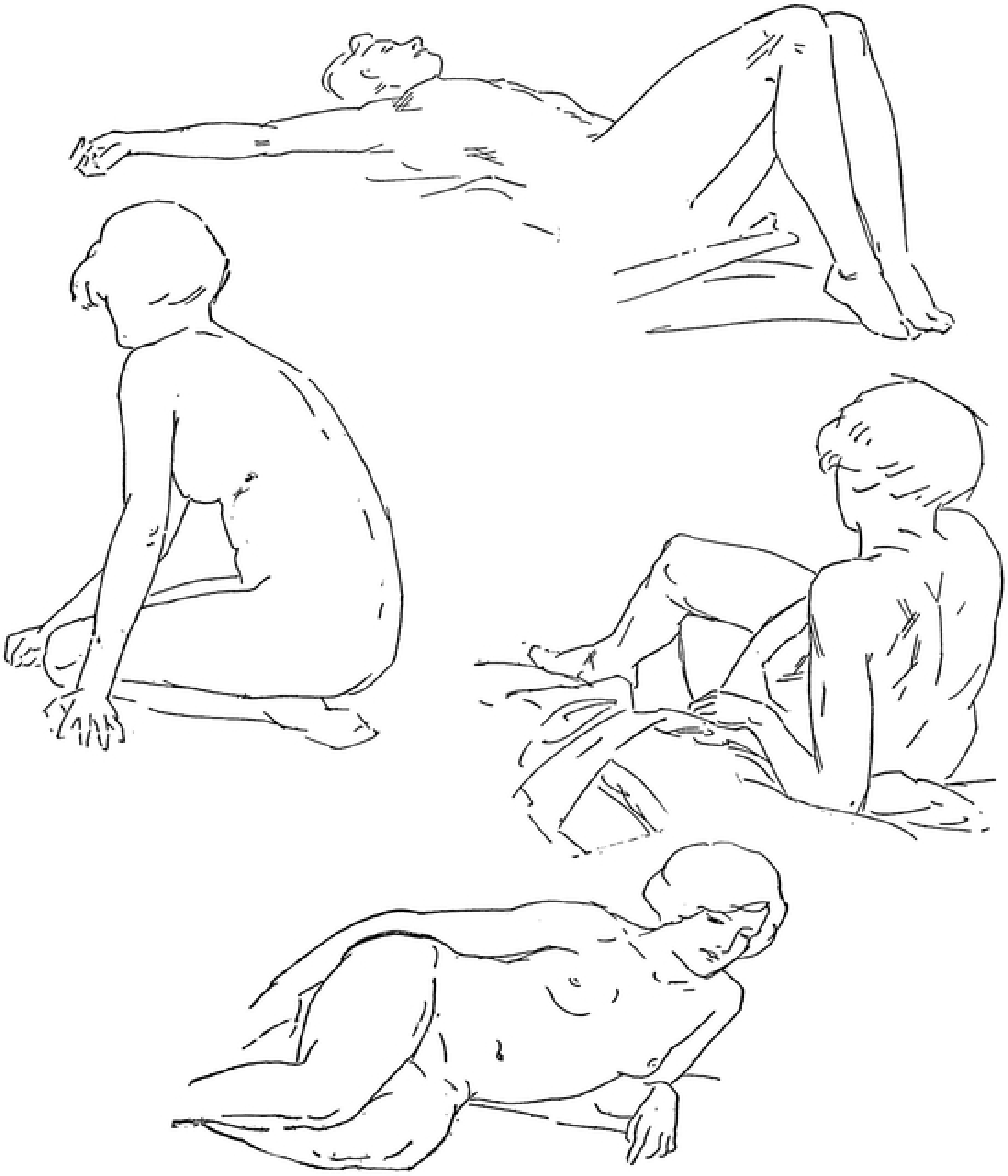
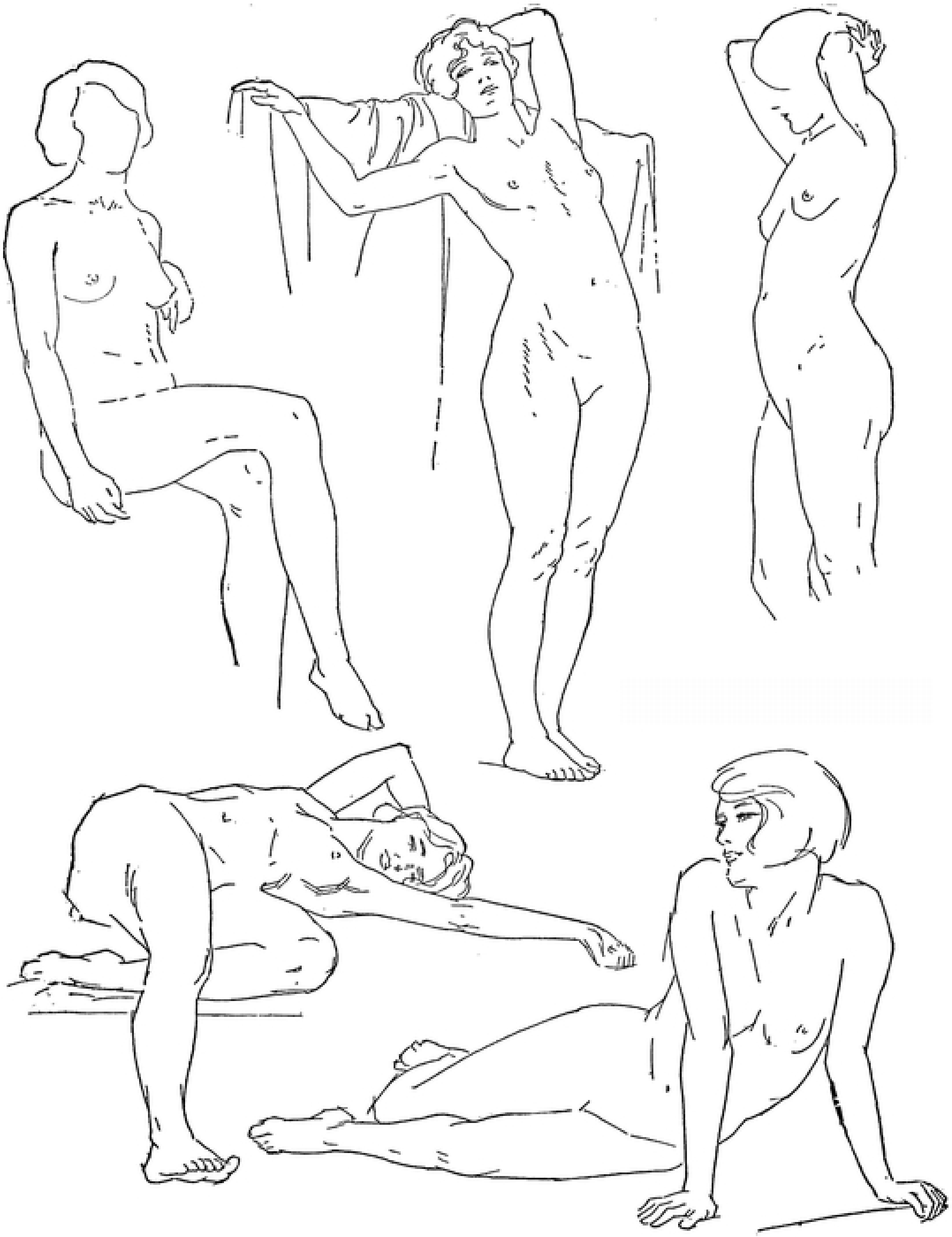
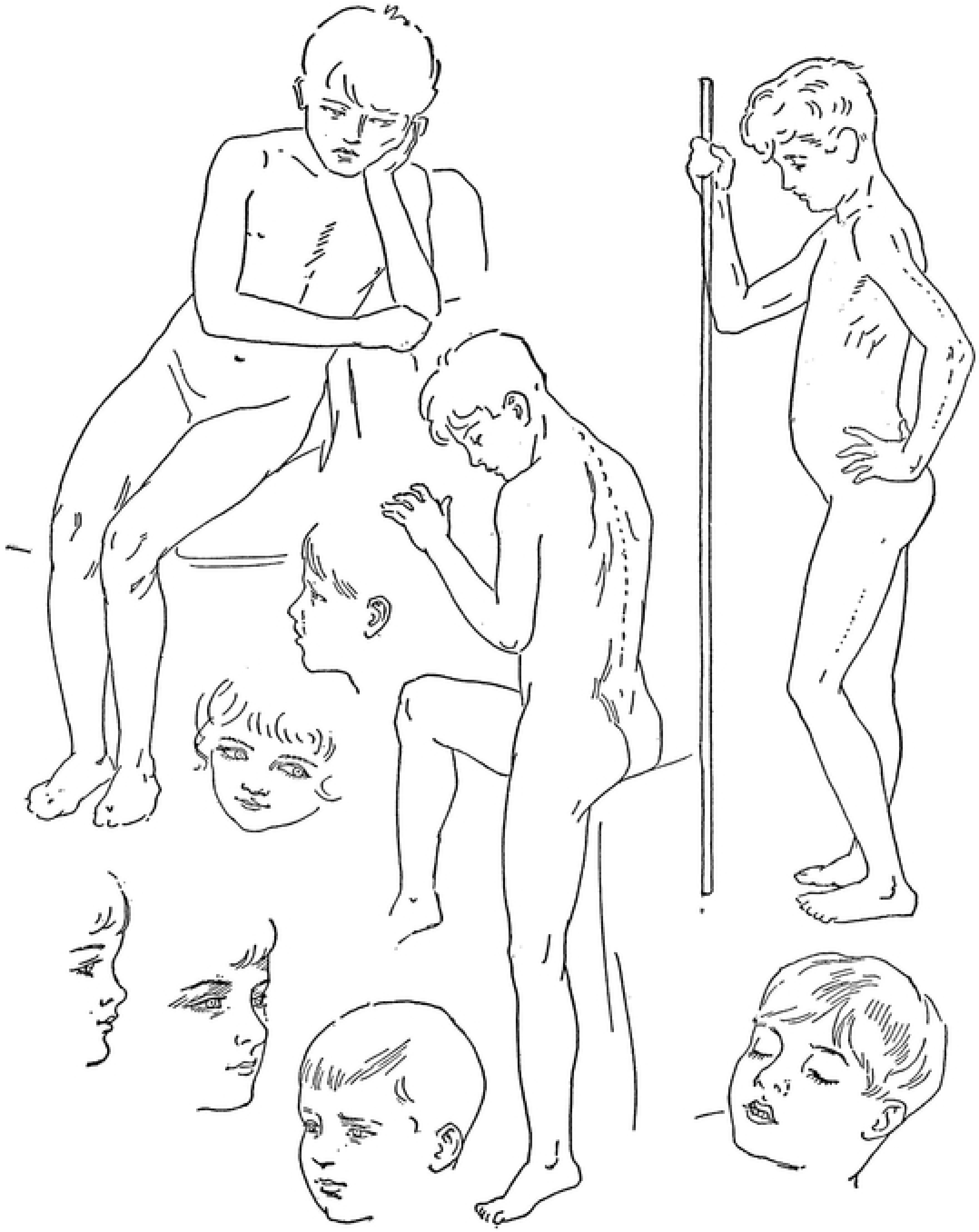
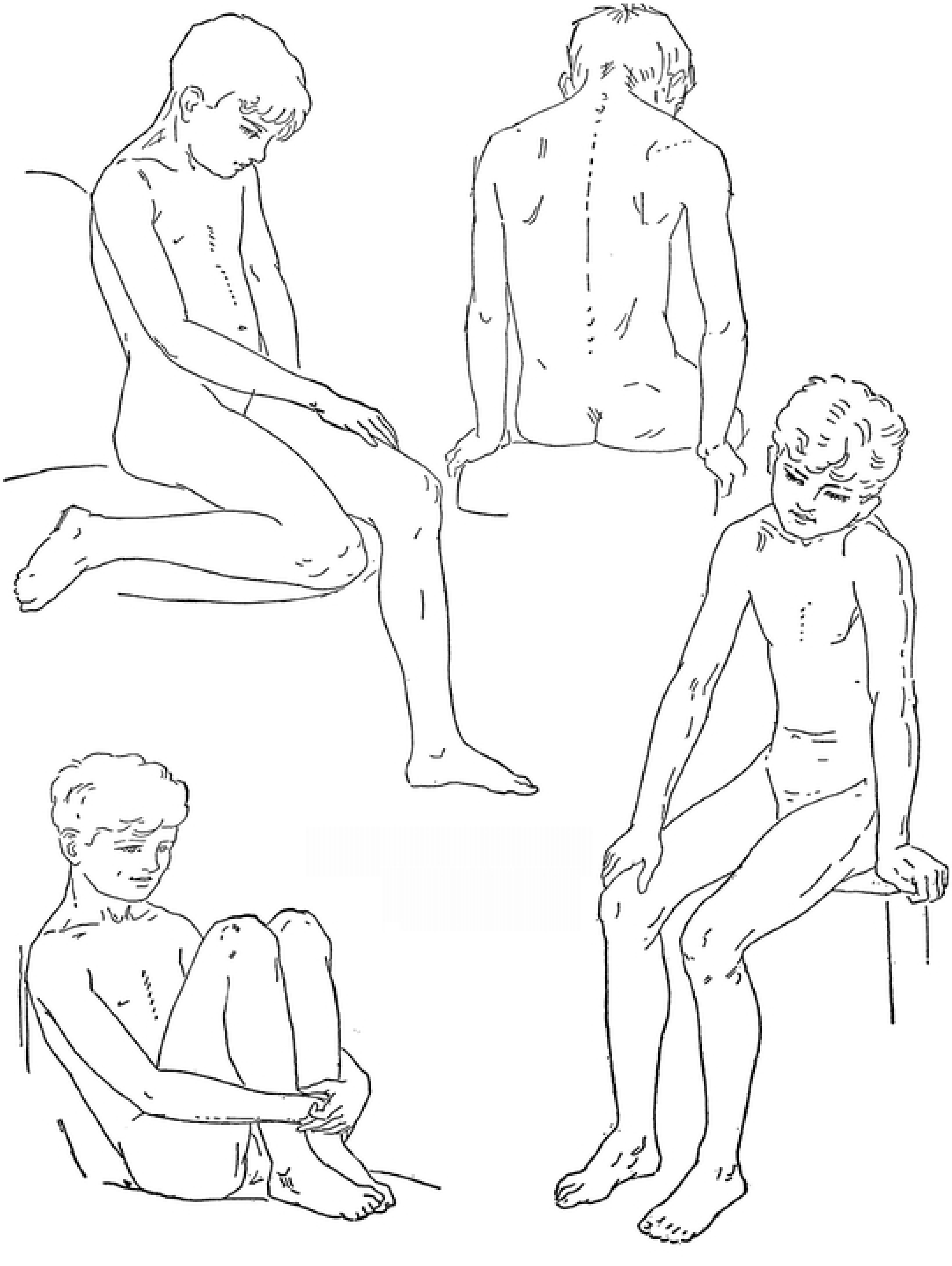
Sketches



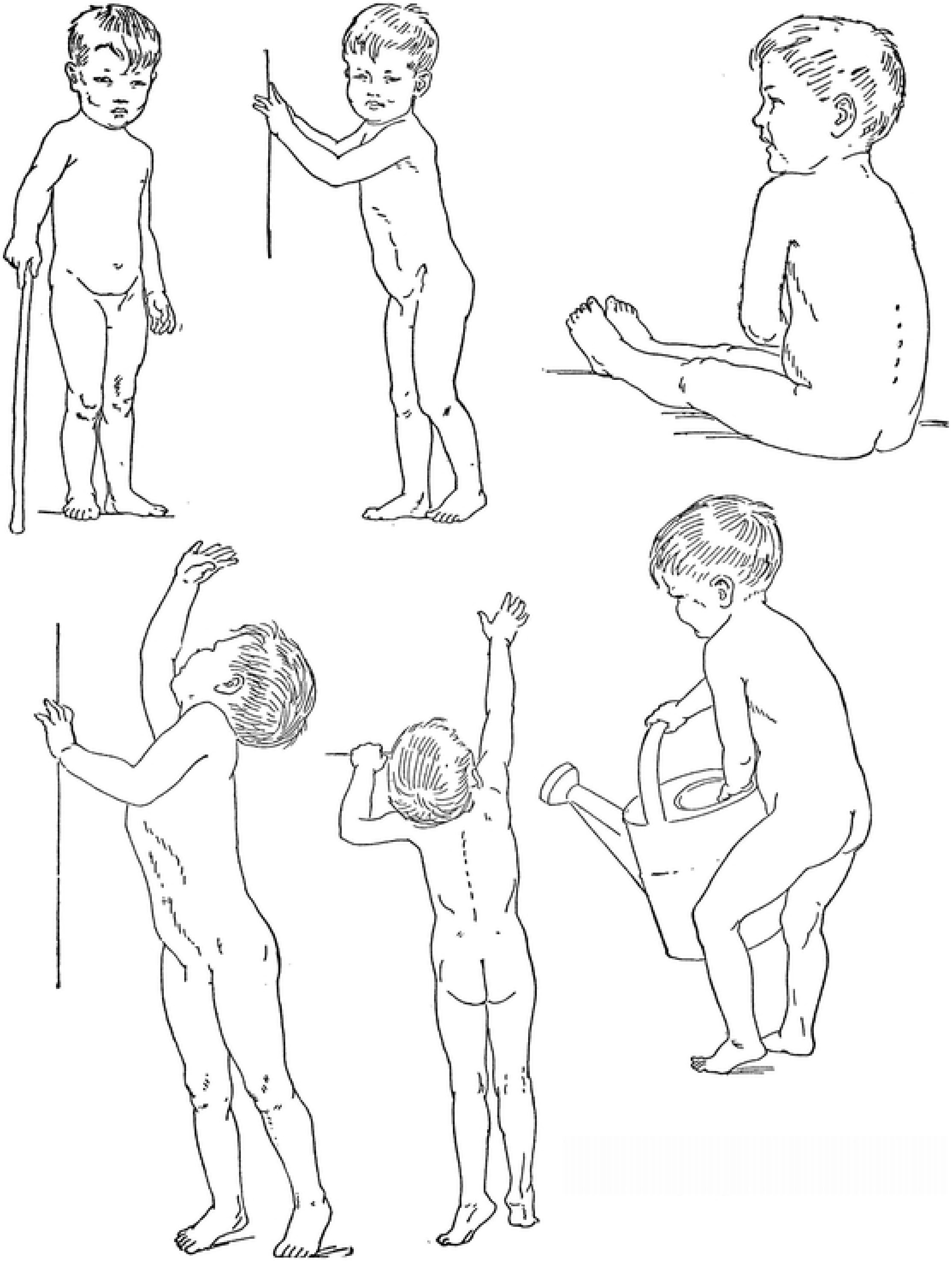


Twenty-five minute sketches

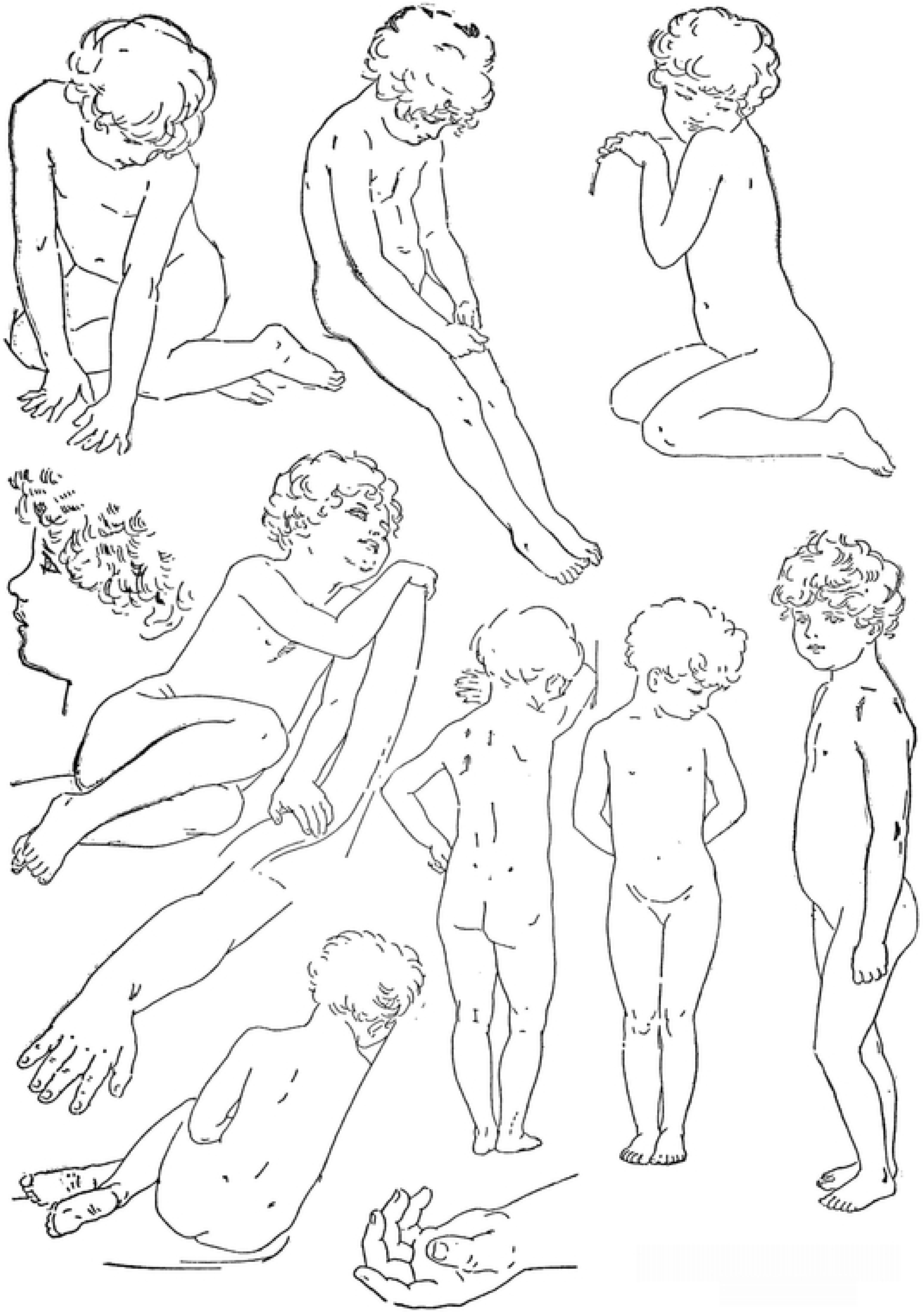




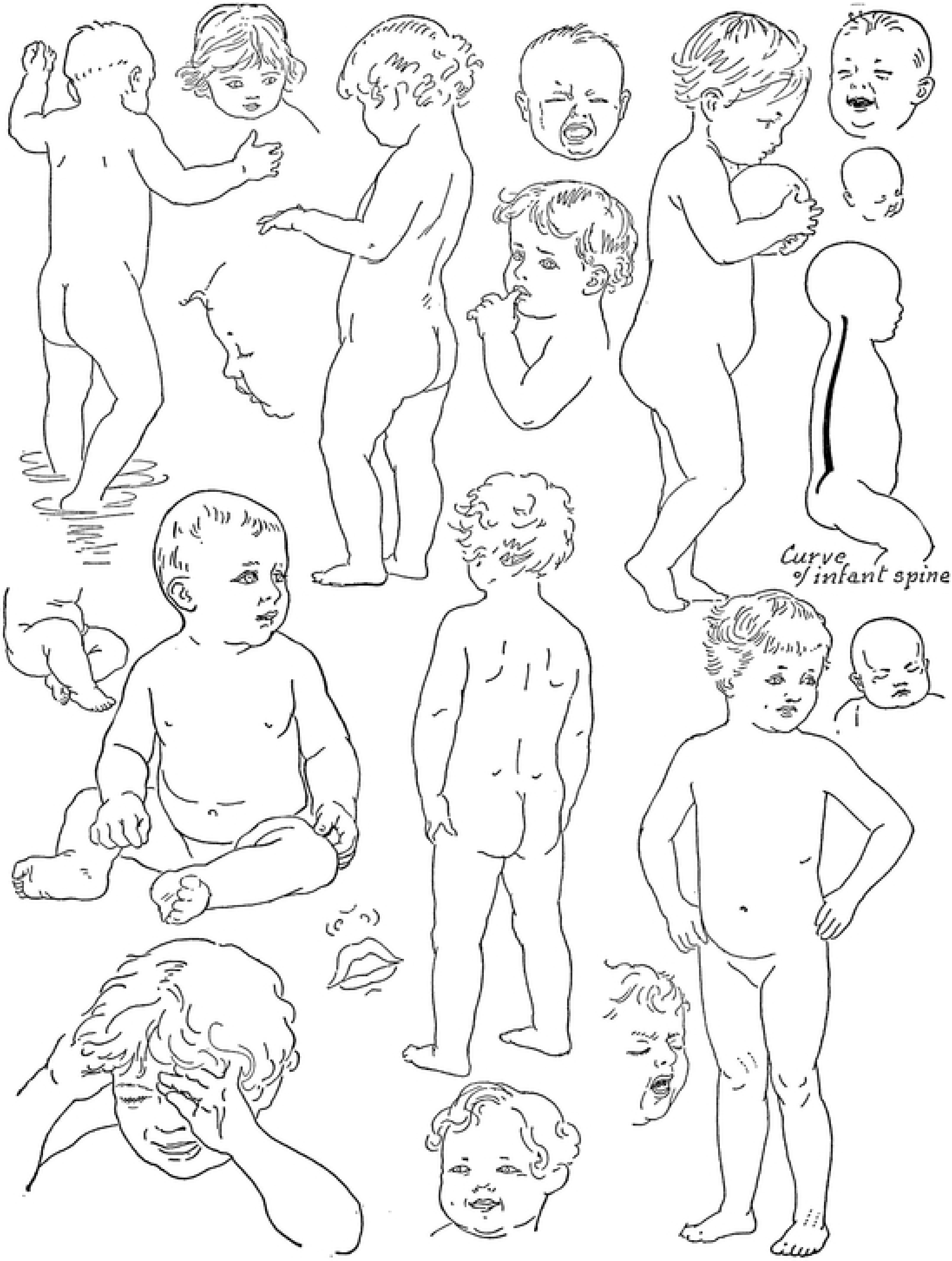
Studies of .Boy of Twelve.



Sketches of boy three years old



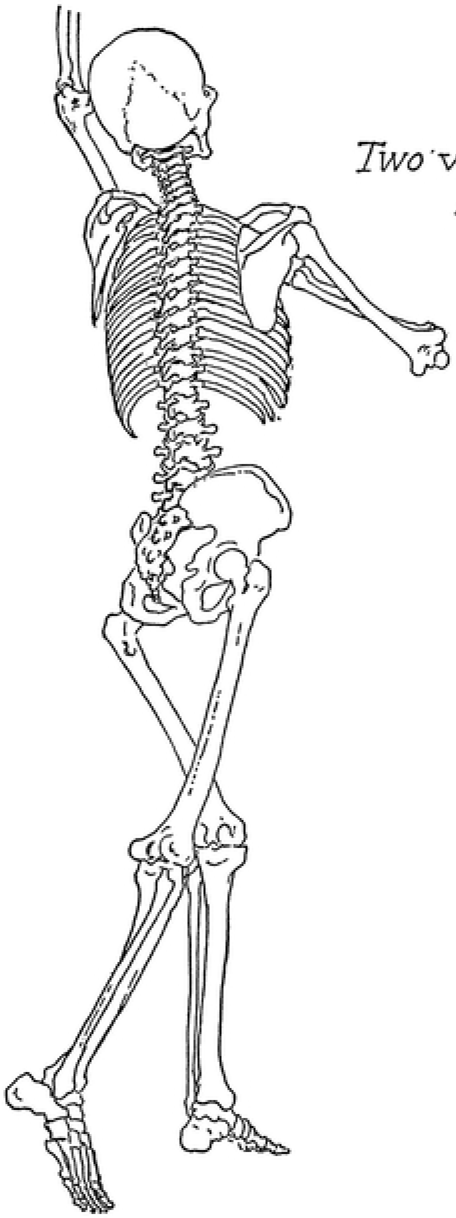
Studies of girl of five

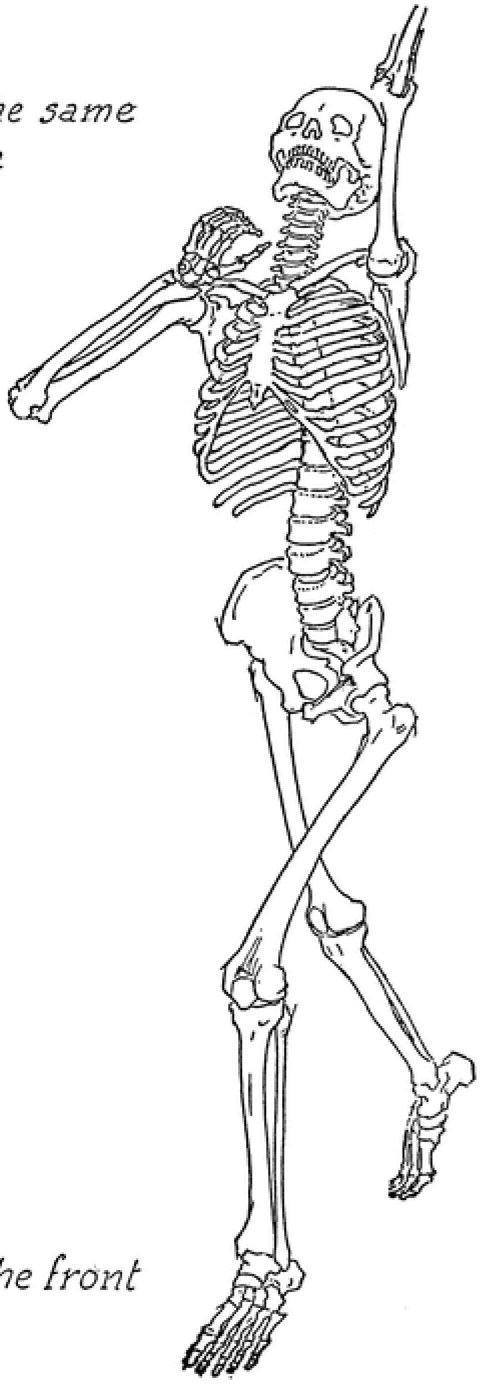

Curve of infant spine

Curve of infant spine

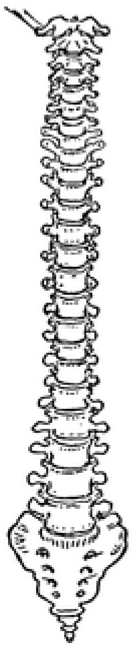
PART TWO

THE SKELETON





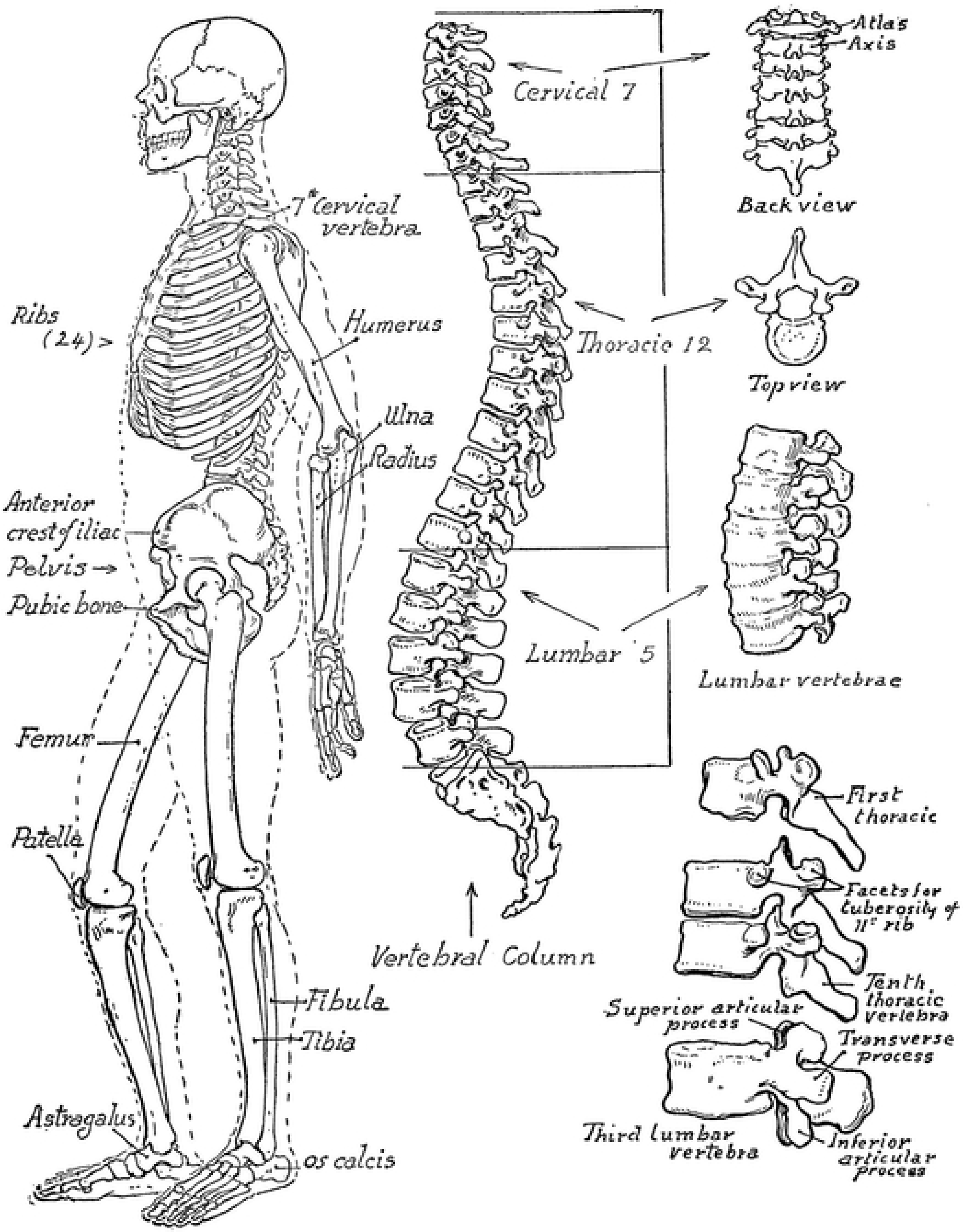
Two views of the same skeleton

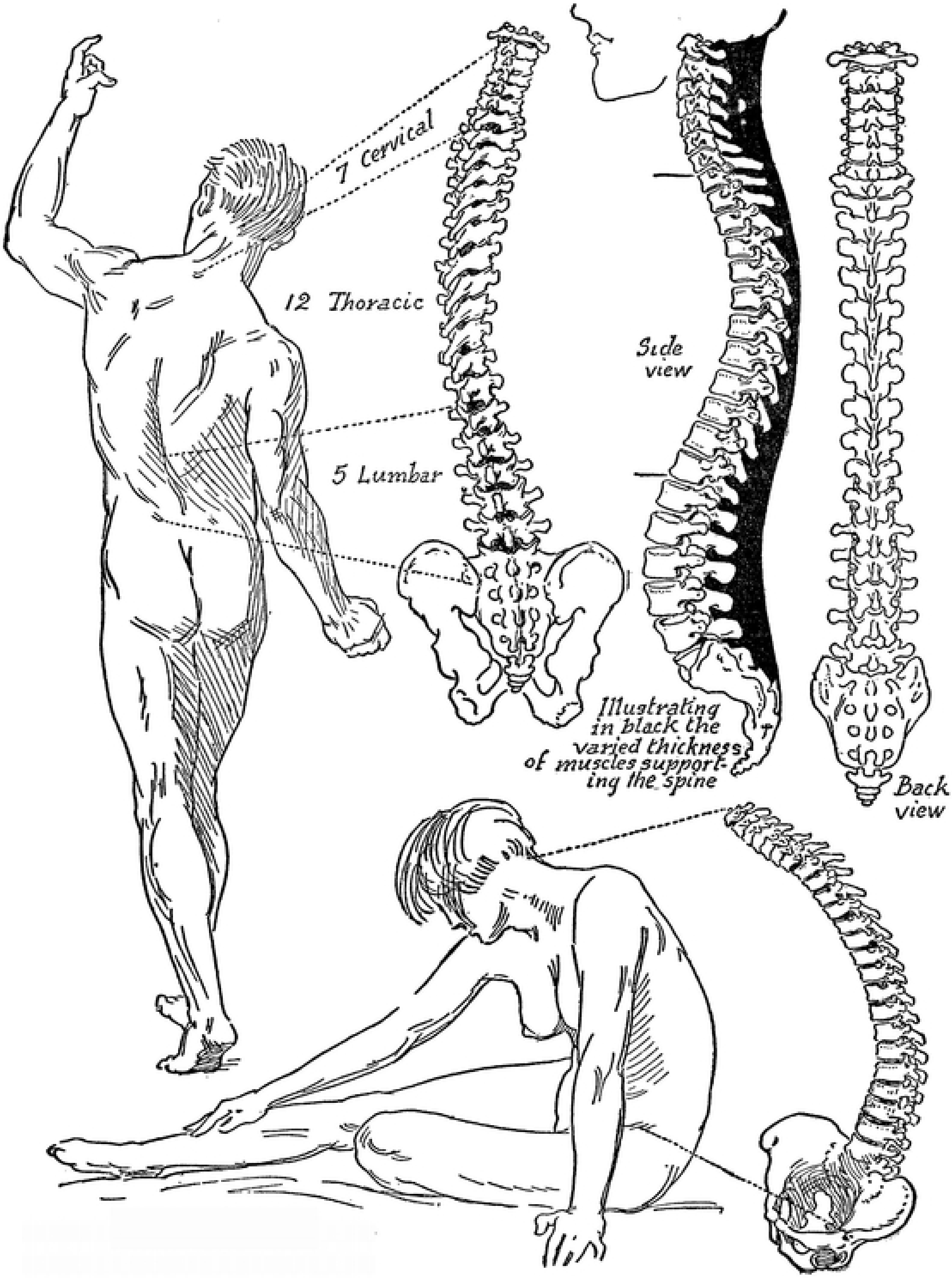


The spine from the front

Two views of the same skeleton

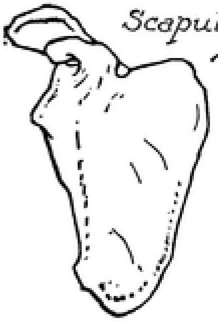
The spine from the front


7th Cervical vertebra
Ribs (24) >
Humerus
Ulna
Radius
Anterior crest of iliac
Pelvis →
Pubic bone
Femur
Patella
Fibula
Tibia
Astragalus
os calcis
Cervical 7
Atlas
Axis
Back view
Thoracic 12
Top view
Lumbar 5
Lumbar vertebrae
Vertebral Column
First thoracic
Facets for tuberosity of 11th rib
Tenth thoracic vertebra
Superior articular process
Transverse process
Third lumbar vertebra
Inferior articular process

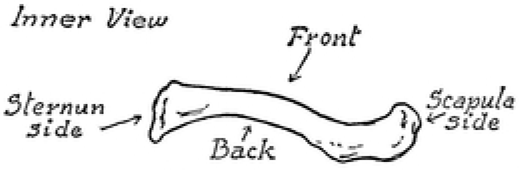


7 Cervical
12 Thoracic
5 Lumbar
Side view
Illustrating in black the varied thickness of muscles supporting the spine
Back view

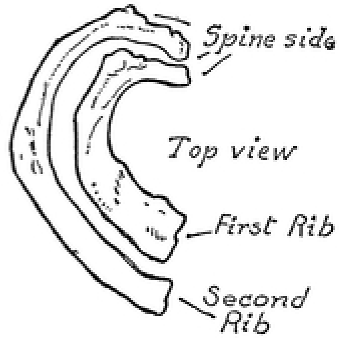
Studies of the Spine

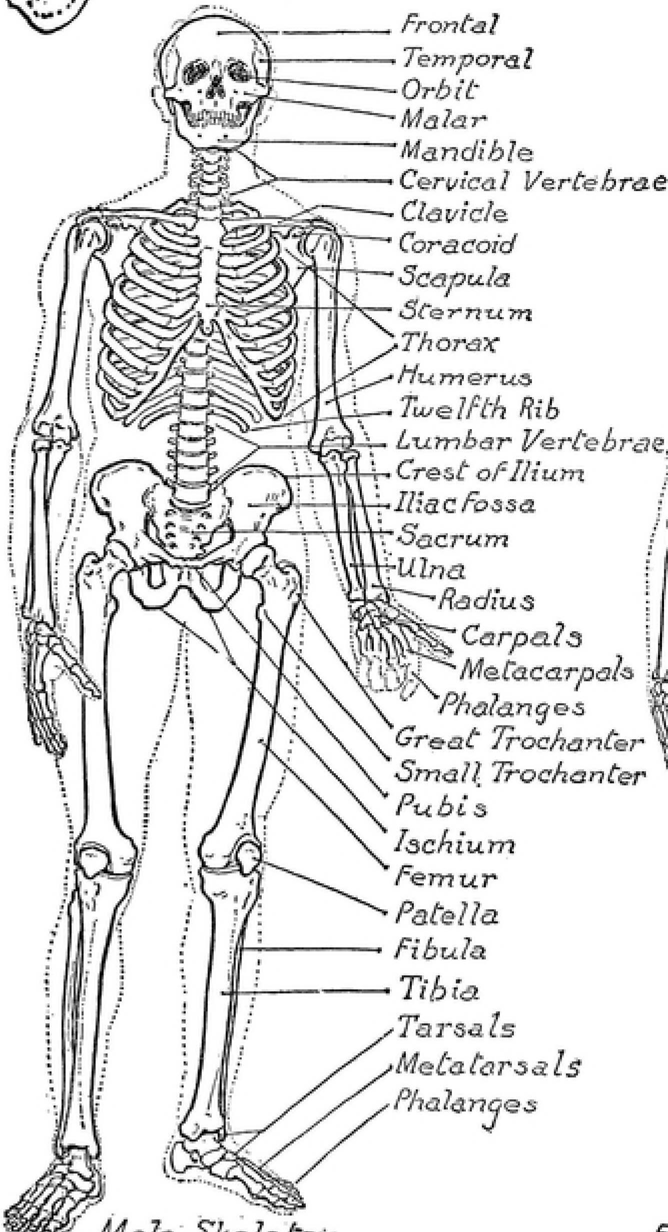


Scapula Inner View

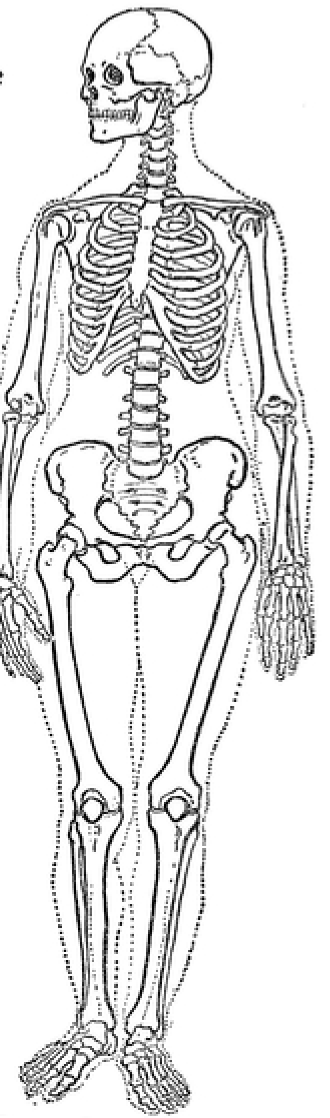

Front
Sternun side
Back
Scapula side

Clavicle Top View

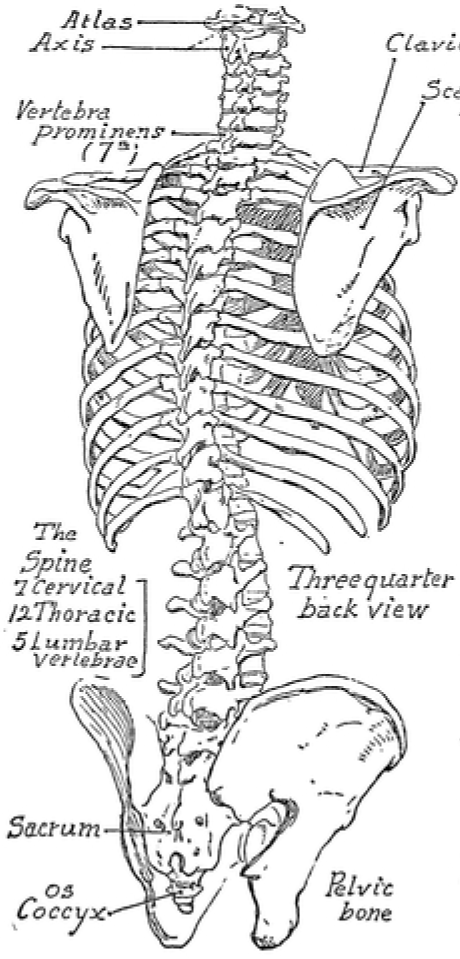

Spine side
Top view
First Rib
Second Rib

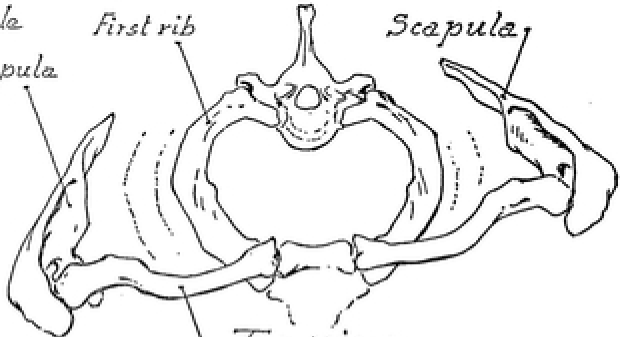

Frontal
Temporal
Orbit
Malar
Mandible
Cervical Vertebrae
Clavicle
Coracoid
Scapula
Sternum
Thorax
Humerus
Twelfth Rib
Lumbar Vertebrae
Crest of Ilium
Iliac Fossa
Sacrum
Ulna
Radius
Carpals
Metacarpals
Phalanges
Great Trochanter
Small Trochanter
Pubis
Ischium
Femur
Patella
Fibula
Tibia
Tarsals
Metatarsals
Phalanges

Male Skeleton

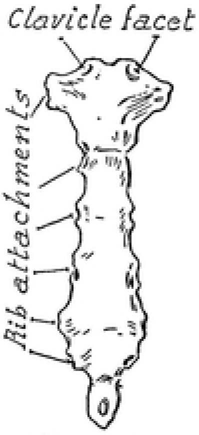


Female Skeleton

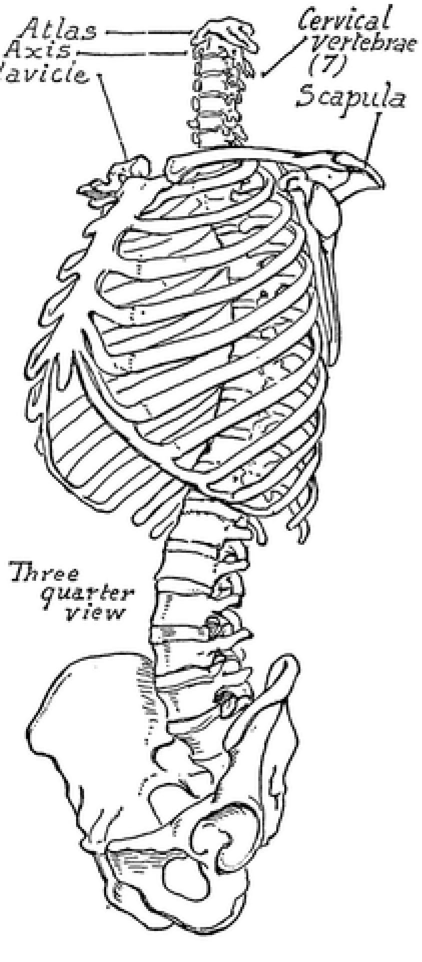

Atlas
Axis
Vertebra prominens (7th)
Clavicle
Scapula
The Spine
7 Cervical
12 Thoracic
5 Lumbar vertebrae
Three quarter back view
Sacrum
os Coccyx
Pelvic bone

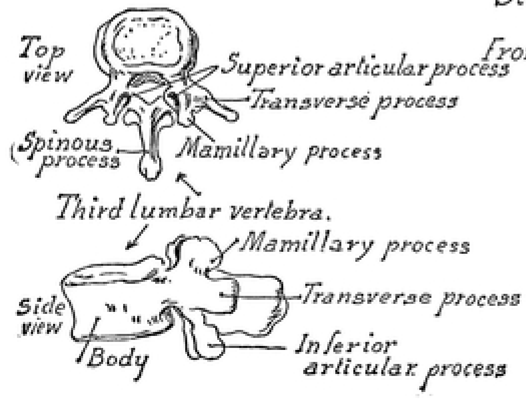

First rib
Scapula
Scapula

Top view
Action of clavicle, right arm forward


Clavicle facet
Rib attachments

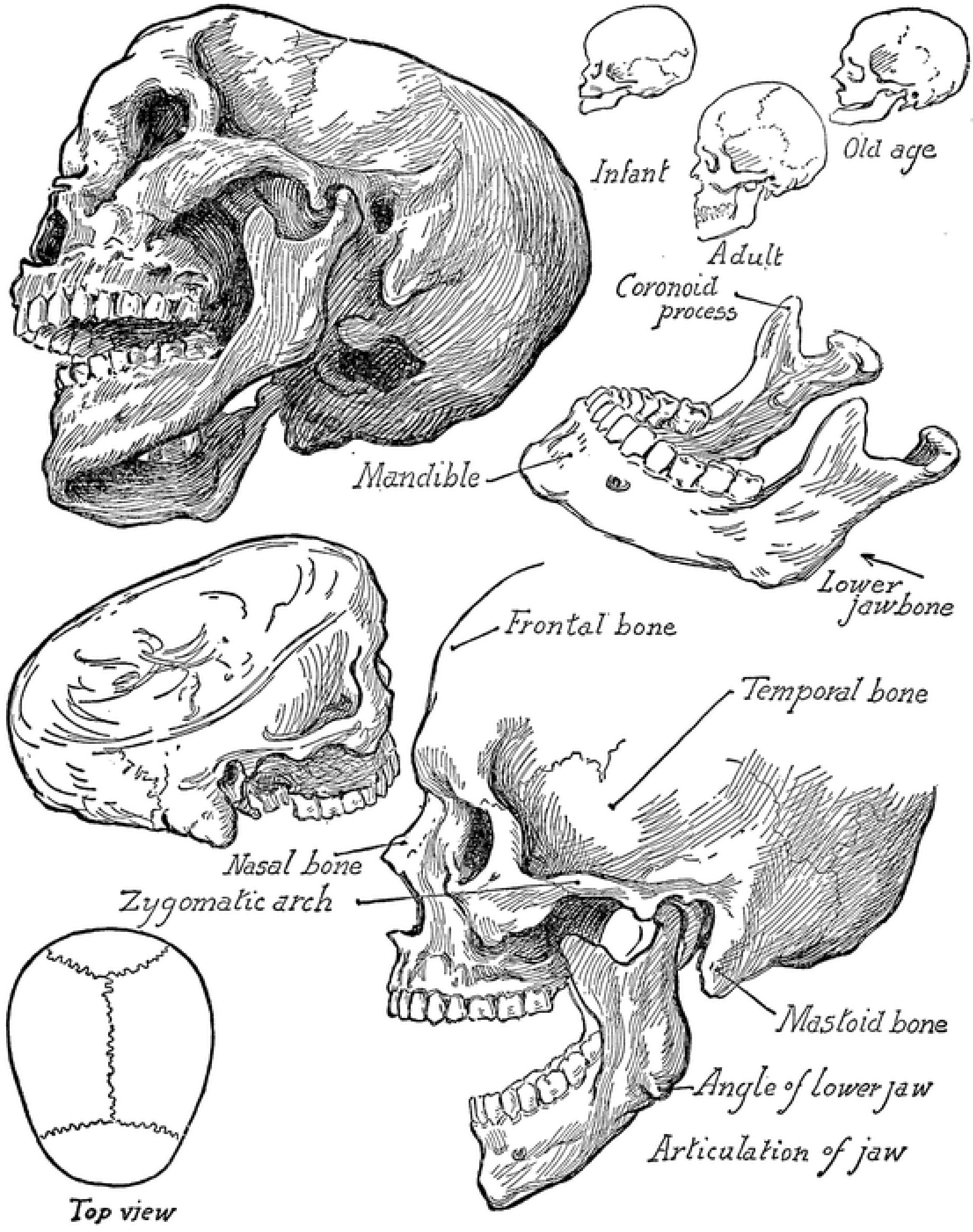
Sternum bone
Front view


Atlas
Axis
Clavicle
Cervical vertebrae (7)
Scapula
Three quarter view

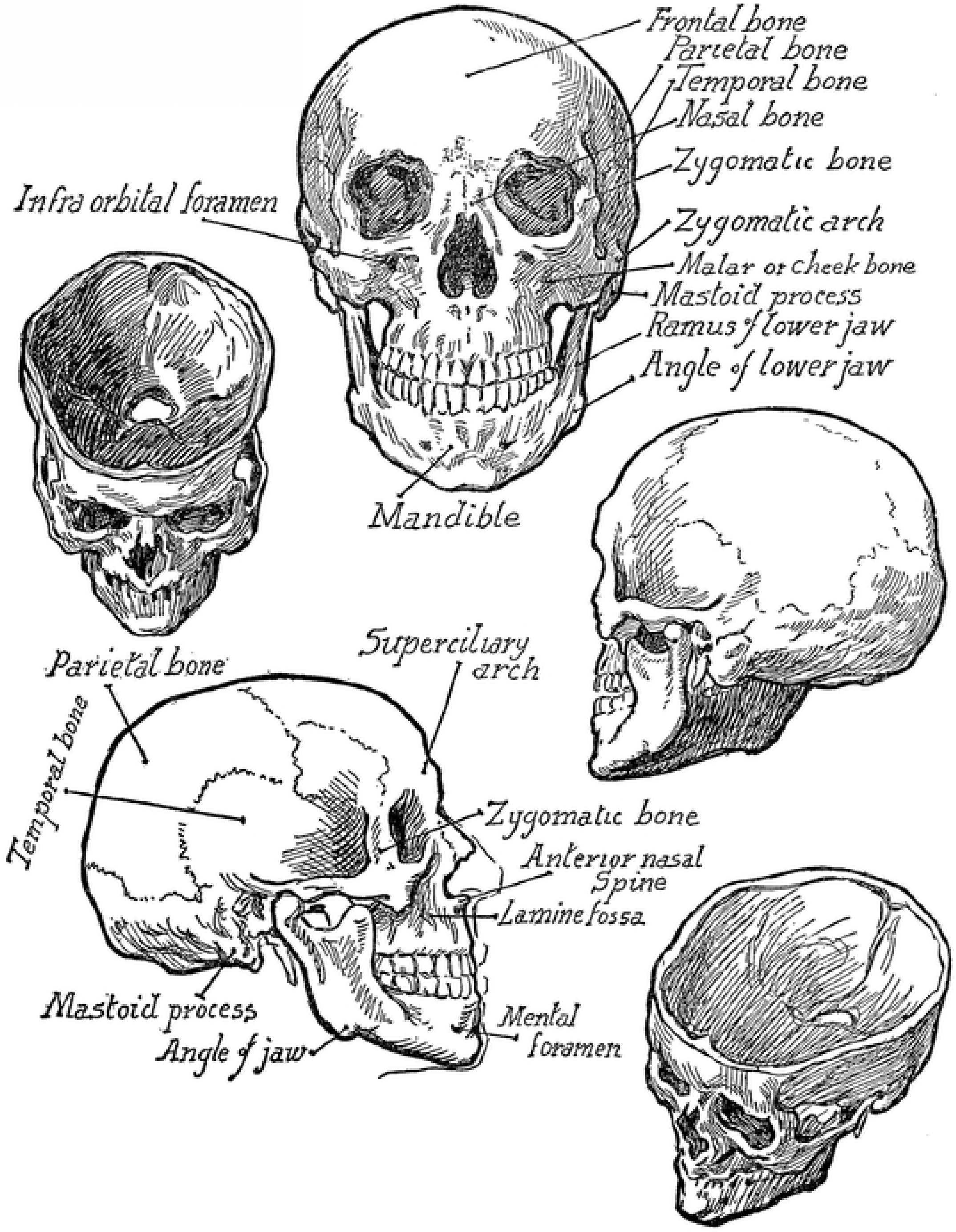

Top view
Superior articular process
Transverse process
Spinous process
Mamillary process
Third lumbar vertebra.
Mamillary process
Side view
Transverse process
Inferior articular process
Body

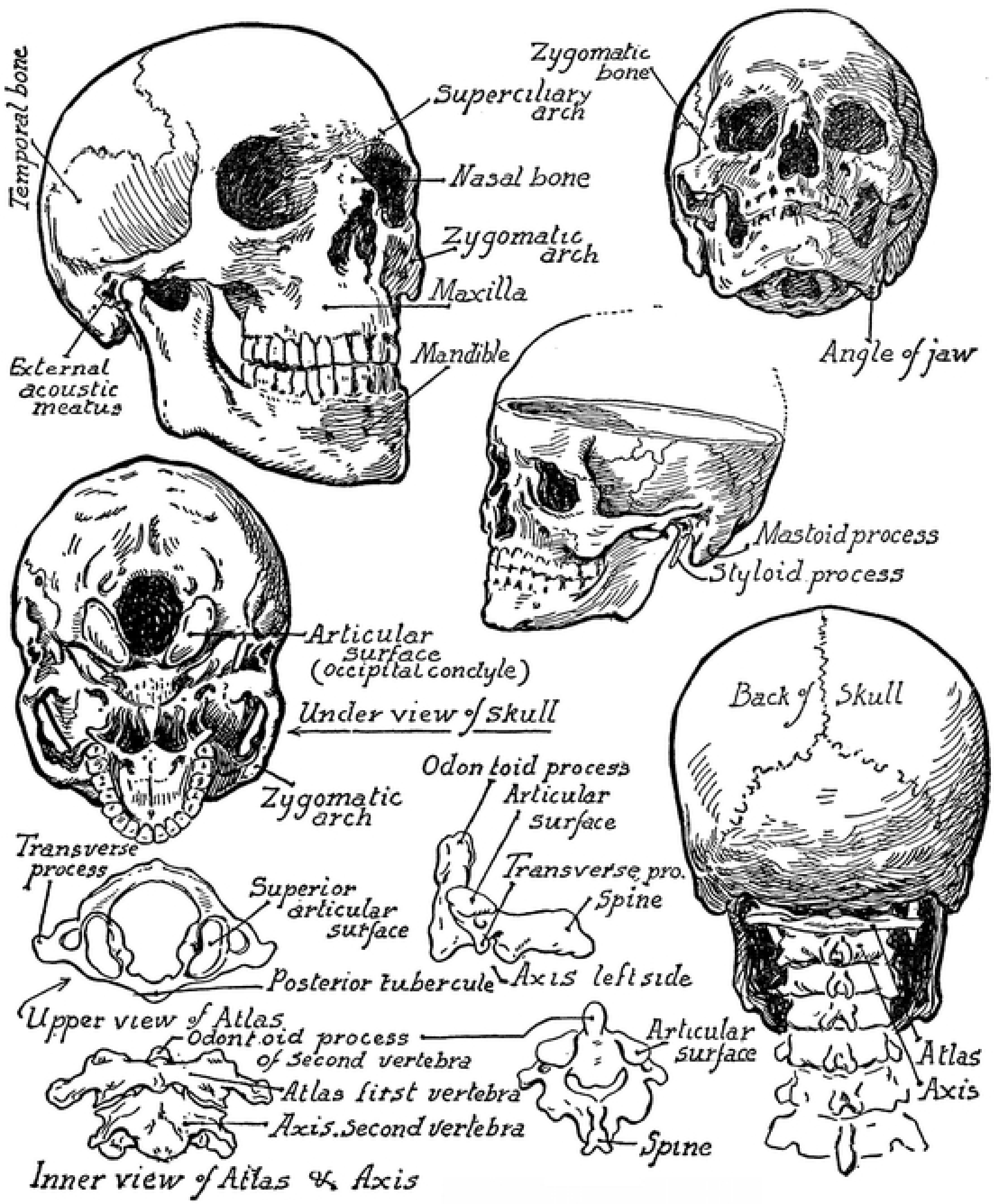
PART THREE

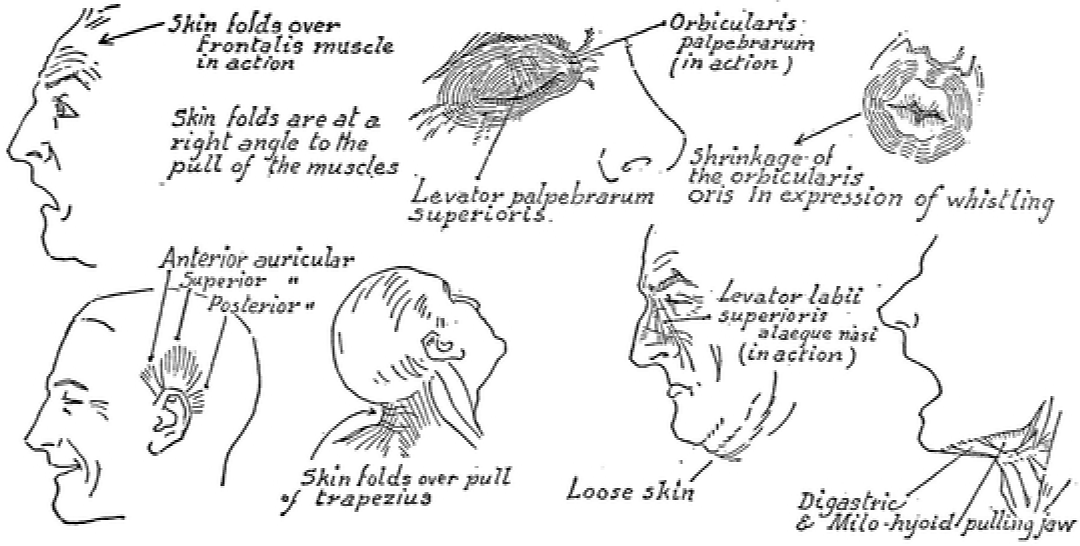
THE HEAD and NECK

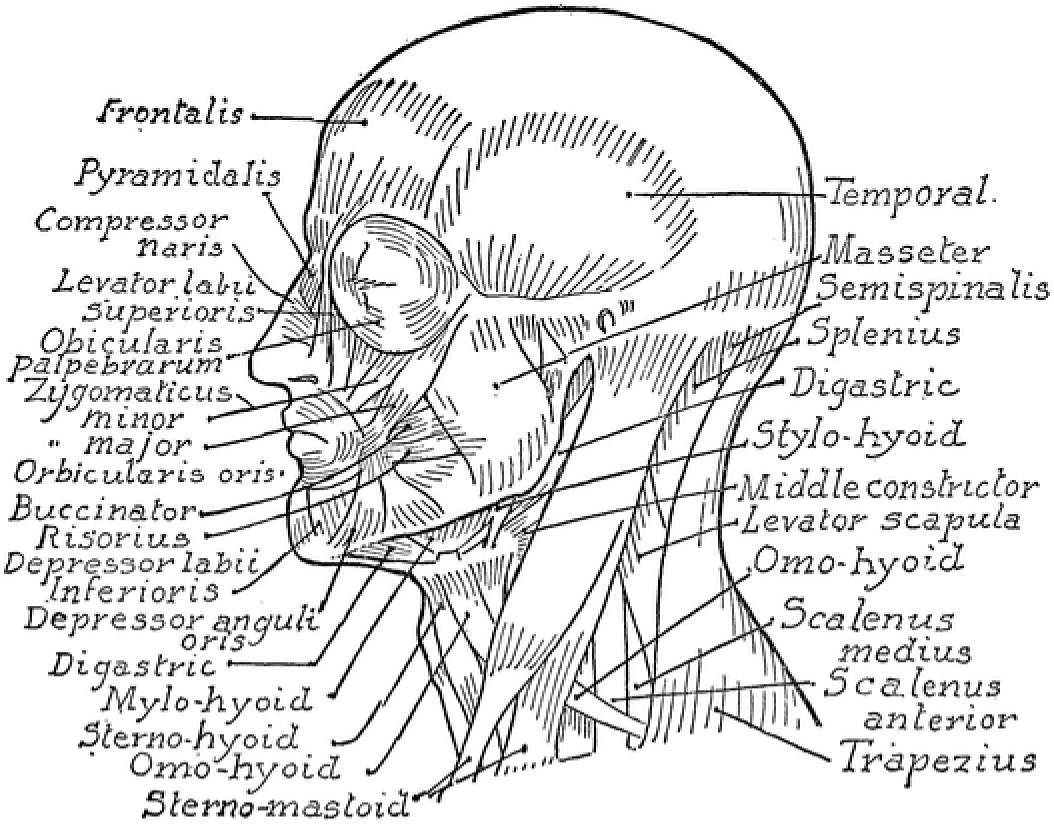

Infant
Adult
Old age
Coronoid process
Mandible
Lower jawbone
Frontal bone
Temporal bone
Nasal bone
Zygomatic arch
Mastoid bone
Angle of lower jaw
Articulation of jaw
Top view

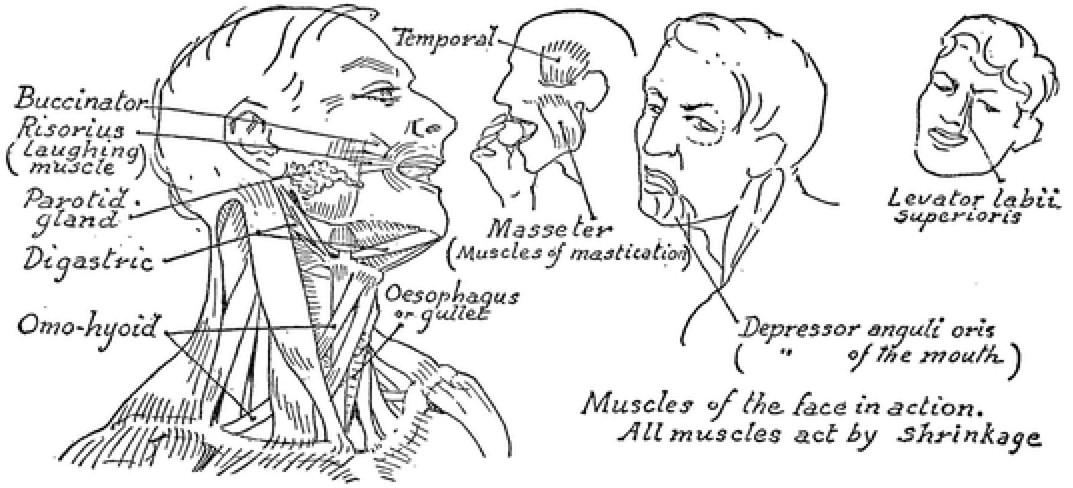
The SKULL


Frontal bone
Parietal bone
Temporal bone
Nasal bone
Zygomatic bone
Infra orbital foramen
Zygomatic arch
Malar or cheek bone
Mastoid process
Ramus of lower jaw
Angle of lower jaw
Mandible
Superciliary arch
Parietal bone
Temporal bone
Zygomatic bone
Anterior nasal Spine
Lamine fossa
Mastoid process
Angle of jaw
Mental foramen

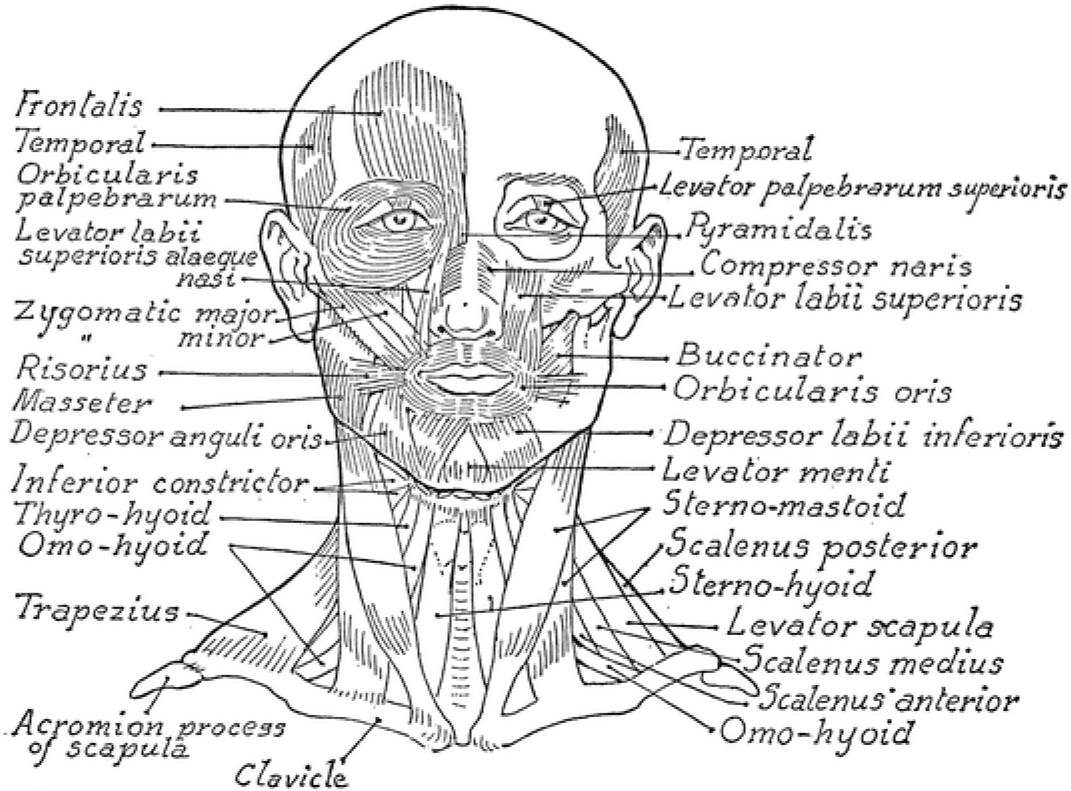

Temporal bone
Superciliary arch
Nasal bone
Zygomatic arch
Maxilla
Mandible
External acoustic meatus
Zygomatic bone
Angle of jaw
Mastoid process
Styloid process
Articular surface (occipital condyle)
Under view of skull
Zygomatic arch
Back of Skull
Odontoid process
Articular surface
Transverse pro.
Spine
Axis left side
Transverse process
Superior articular surface
Posterior tubercule
Upper view of Atlas
Odontoid process of second vertebra
Atlas first vertebra
Axis. second vertebra
Inner view of Atlas & Axis
Articular surface
Spine
Atlas
Axis


Skin folds over frontalis muscle in action
Skin folds are at a right angle to the pull of the muscles
Orbicularis palpebrarum (in action)
Levator palpebrarum superioris.
Shrinkage of the orbicularis oris in expression of whistling
Anterior auricular
Superior "
Posterior "
Skin folds over pull of trapezius
Levator labii superioris alaeque nasi (in action)
Loose skin
Digastric & Milo-hyoid pulling jaw

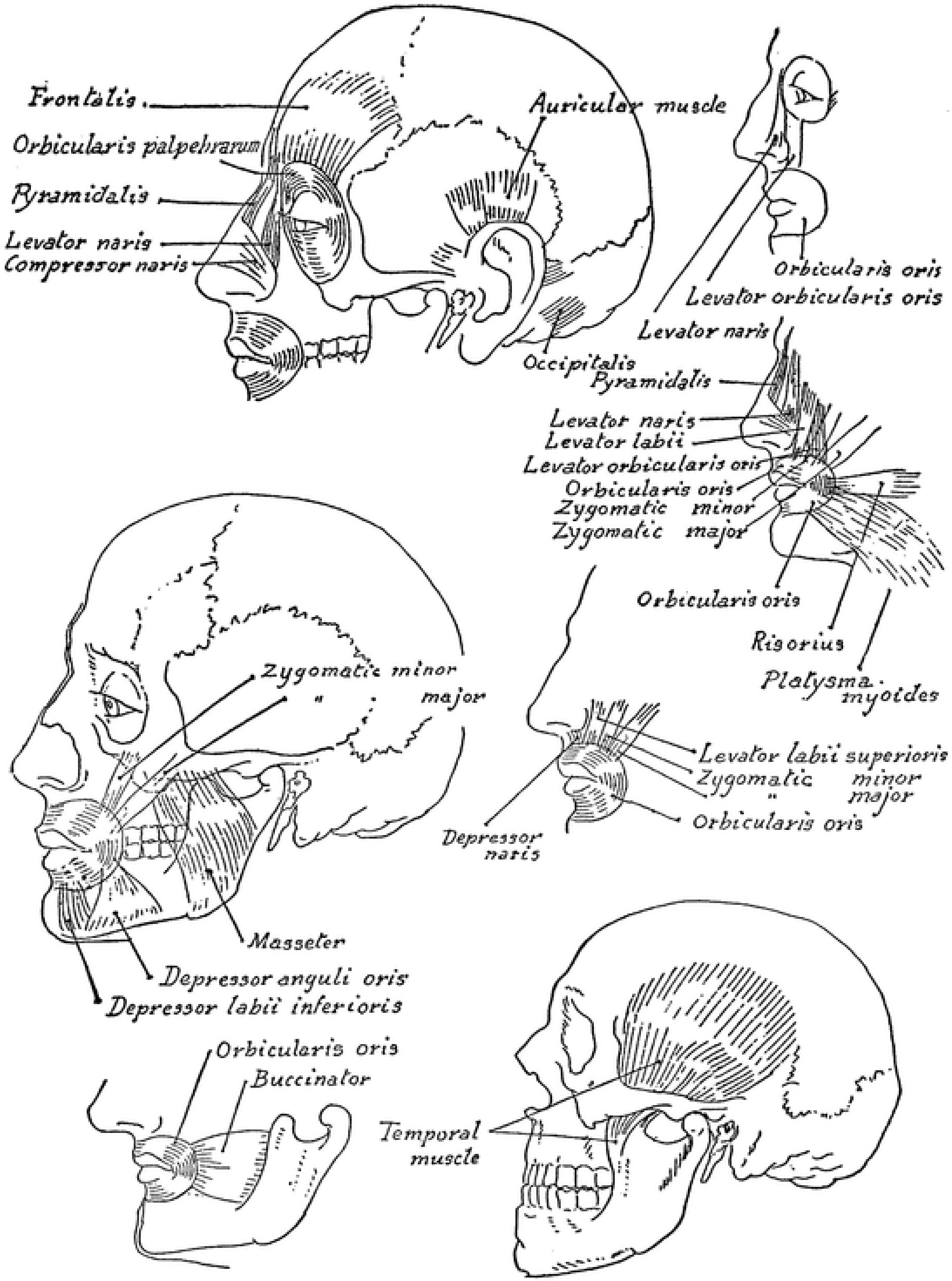

Frontalis
Pyramidalis
Compressor naris
Levator labii superioris
Obicularis Palpebrarum
Zygomaticus minor
" major
Orbicularis oris
Buccinator
Risorius
Depressor labii Inferioris
Depressor anguli oris
Digastric
Mylo-hyoid
Sterno-hyoid
Omo-hyoid
Sterno-mastoid
Temporal.
Masseter
Semispinalis
Splenius
Digastric
Stylo-hyoid
Middle constrictor
Levator scapula
Omo-hyoid
Scalenus medius
Scalenus anterior
Trapezius


Temporal
Buccinator
Risorius (laughing muscle)
Parotid gland
Digastric
Omo-hyoid
Masseter
(Muscles of mastication)
Oesophagus or gullet
Levator labii superioris
Depressor anguli oris
(" of the mouth)

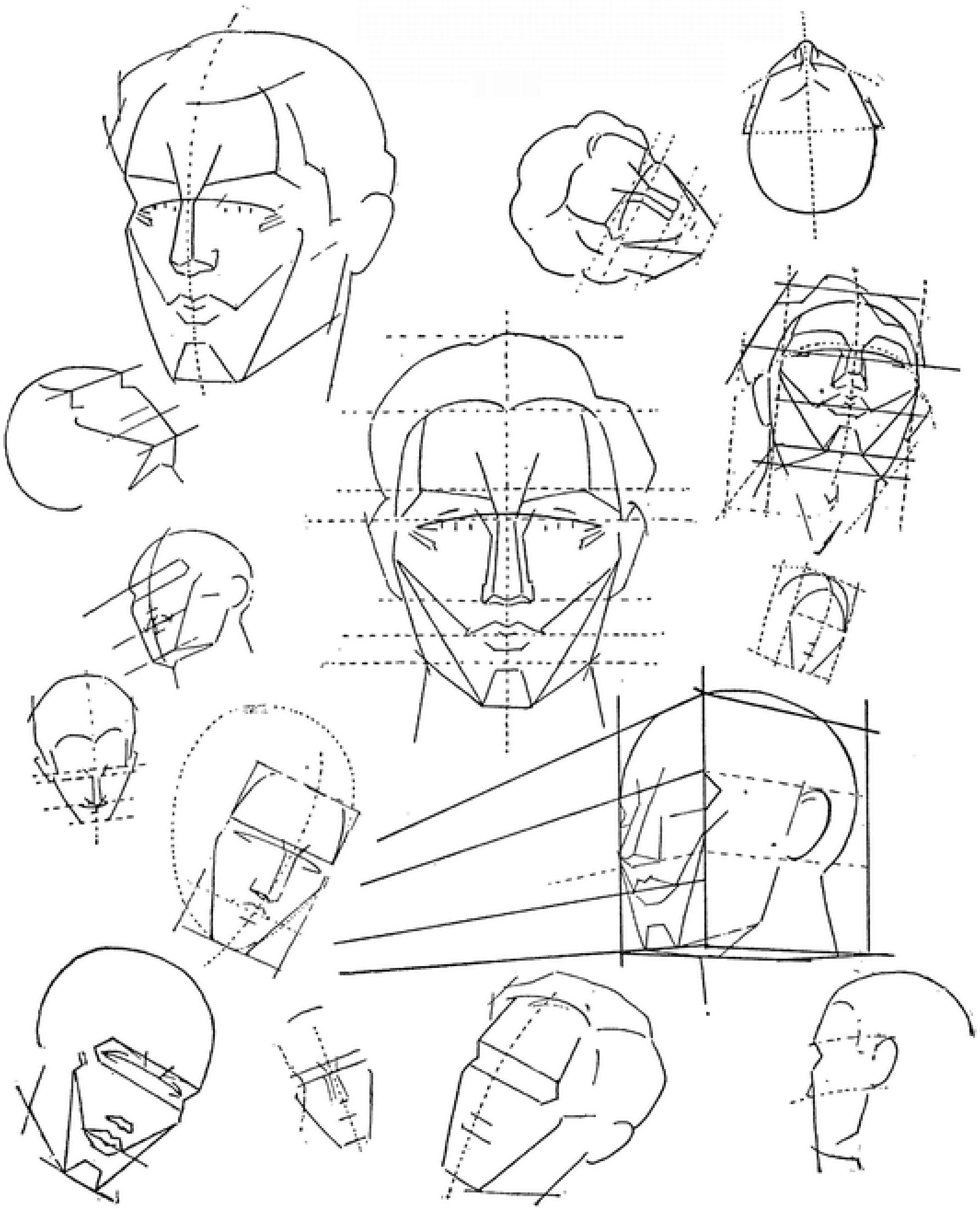
Muscles of the face in action.
All muscles act by shrinkage

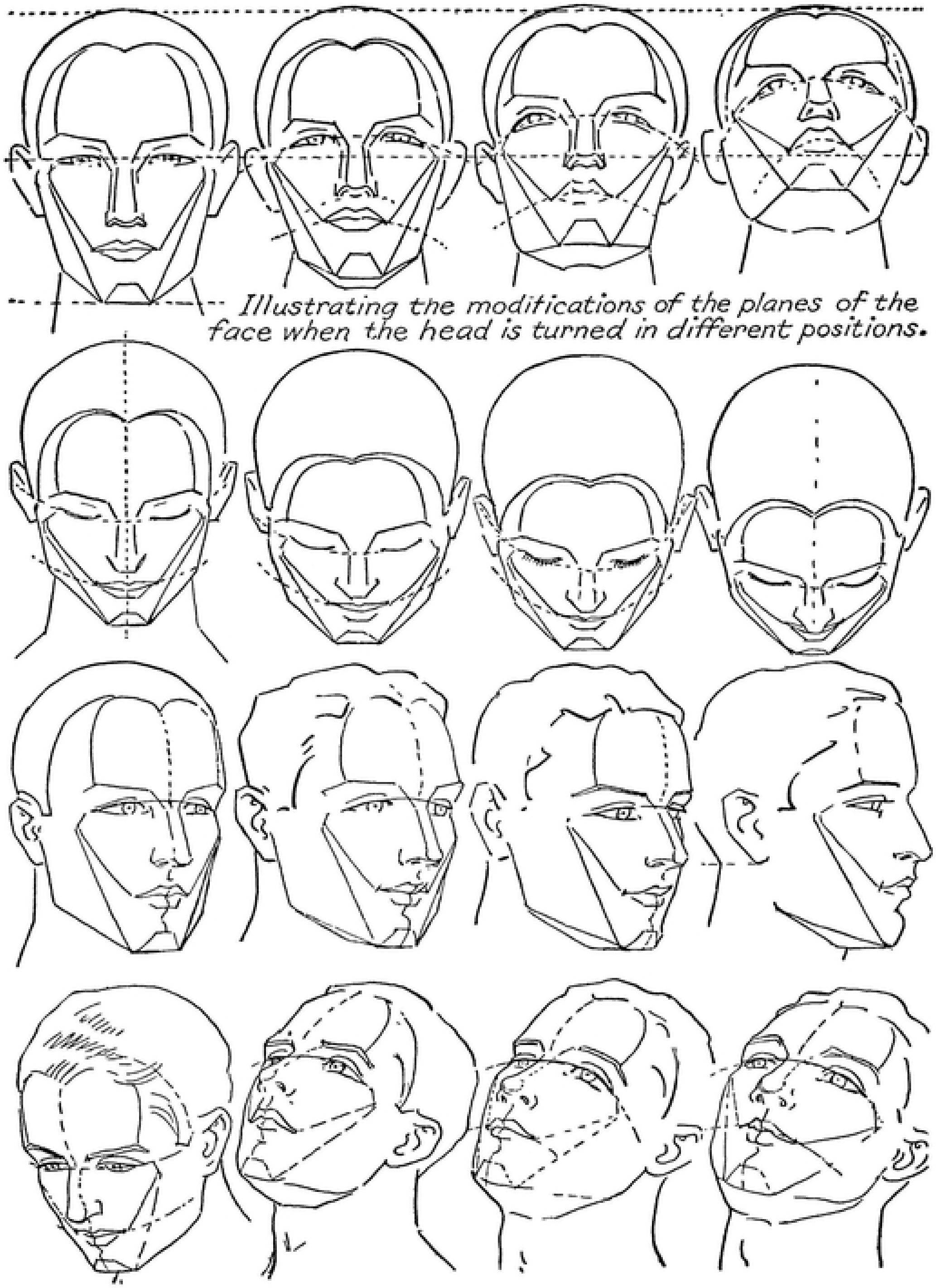

Frontalis
Temporal
Orbicularis palpebrarum
Levator labii superioris alaeque nasi
Zygomatic major
" minor
Risorius
Masseter
Depressor anguli oris
Inferior constrictor
Thyro-hyoid
Omo-hyoid
Trapezius
Acromion process of scapula
Clavicle
Temporal
Levator palpebrarum superioris
Pyramidalis
Compressor naris
Levator labii superioris
Buccinator
Orbicularis oris
Depressor labii inferioris
Levator menti
Sterno-mastoid
Scalenus posterior
Sterno-hyoid
Levator scapula
Scalenus medius
Scalenus anterior
Omo-hyoid

The underlying and the superficial muscles of the face and neck

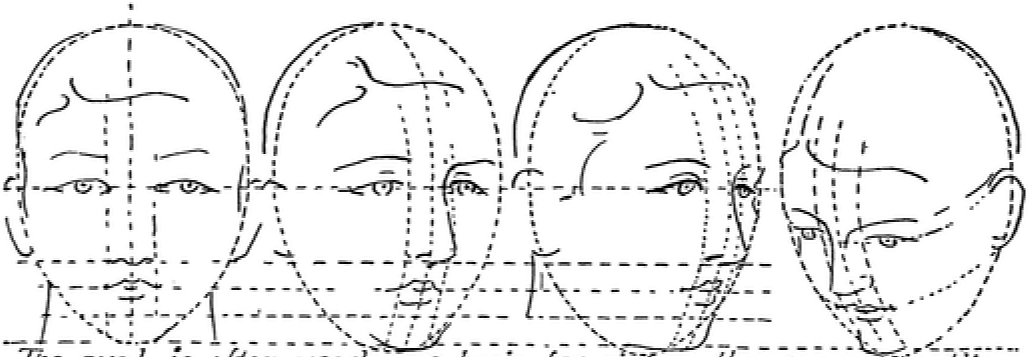

Frontalis
Orbicularis palpebrarum
Pyramidalis
Levator naris
Compressor naris
Auricular muscle
Occipitalis
Orbicularis oris
Levator orbicularis oris
Levator naris
Pyramidalis
Levator naris
Levator labii
Levator orbicularis oris
Orbicularis oris
Zygomatic minor
Zygomatic major
Orbicularis oris
Risorius
Platysma myoides
Zygomatic minor
" major
Masseter
Depressor anguli oris
Depressor labii inferioris
Levator labii superioris
Zygomatic minor
" major
Orbicularis oris
Depressor naris
Orbicularis oris
Buccinator
Temporal muscle

Method of blocking the planes of the face

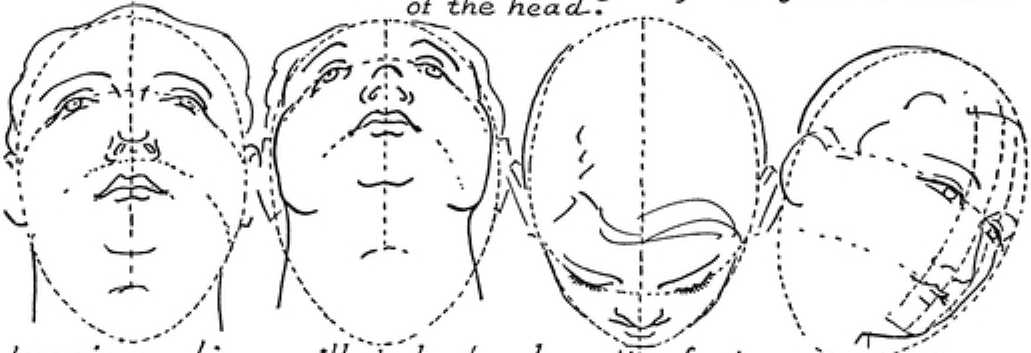



Illustrating the modifications of the planes of the
face when the head is turned in different positions.

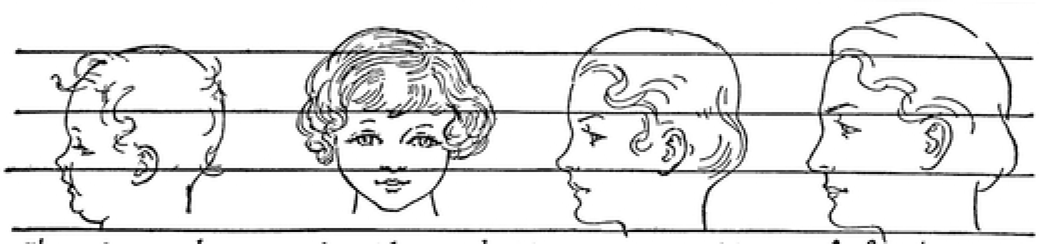
Illustrating the modifications of the planes of the face when the head is turned in different positions-



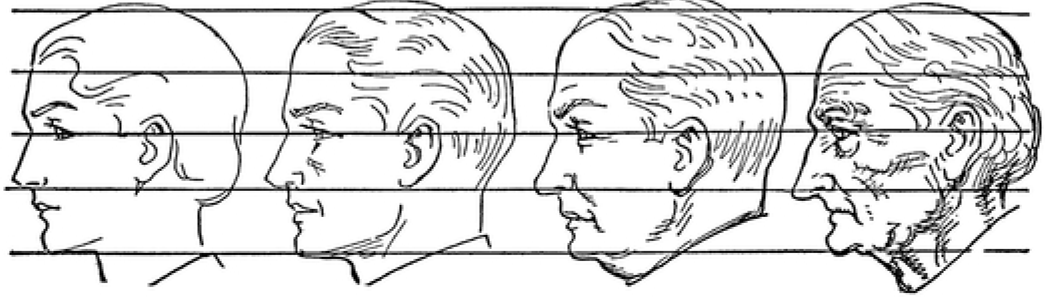
The oval is often used as a basis for giving the general outline of the head.

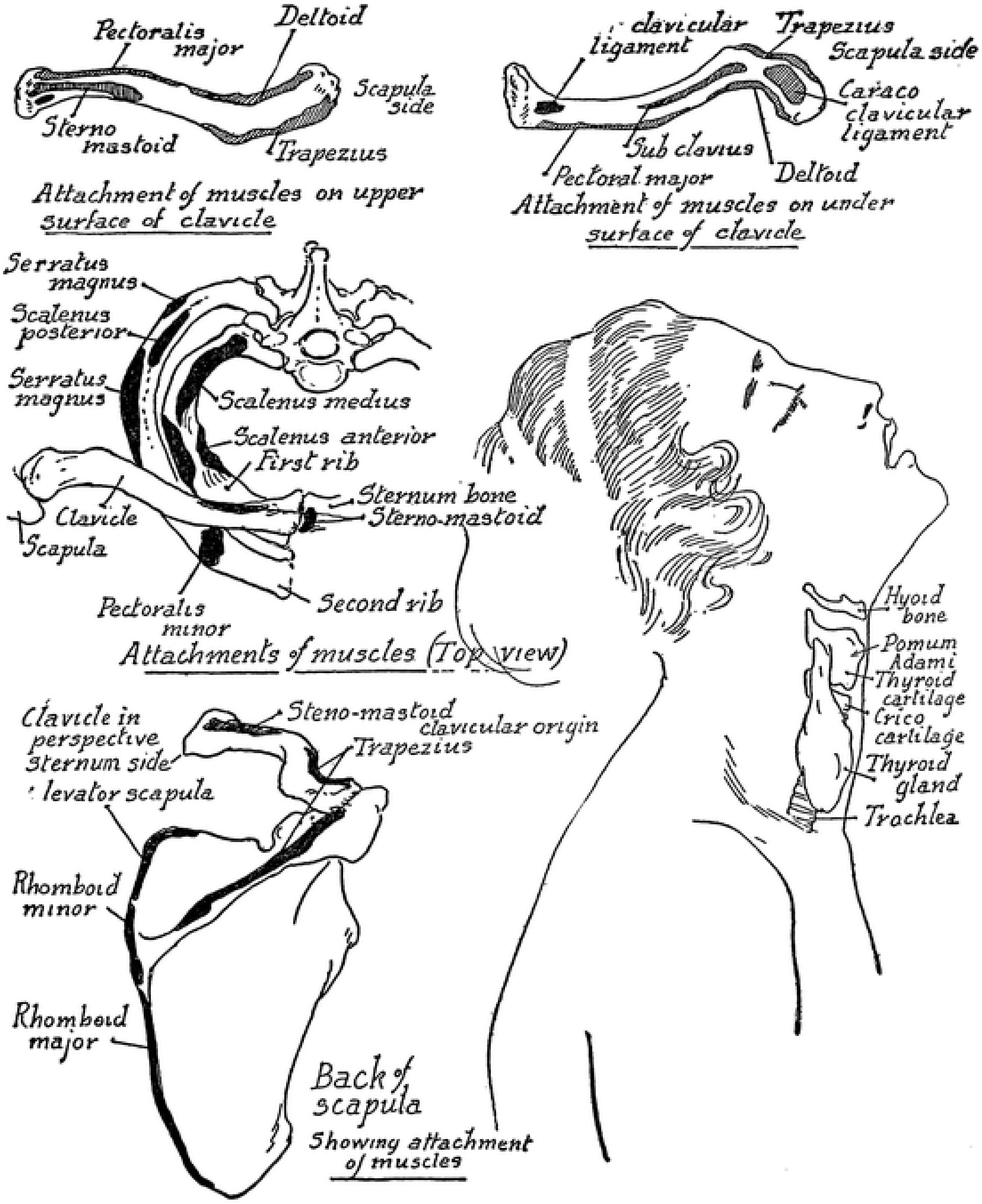


Imaginary lines will help to place the features in their proper relation and to give convexity to the head.

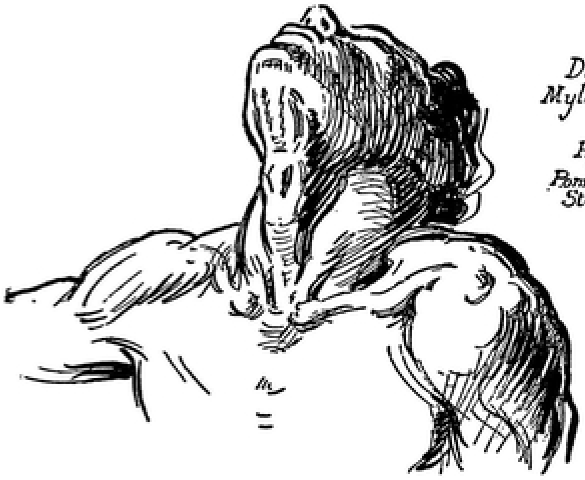


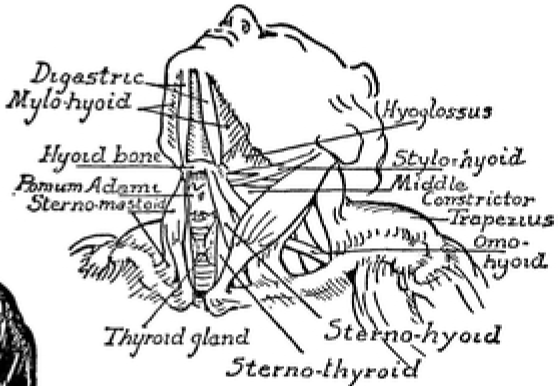
Showing changes in the relative proportions of features and skull at different ages. The nose gradually straightens, then lengthens, the ears lengthen, the eyes are placed higher.

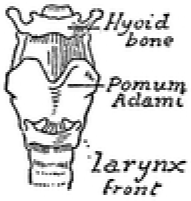


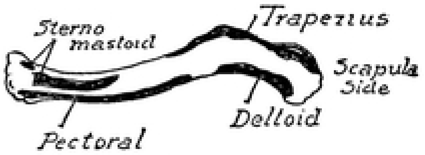

Pectoralis major
Deltoid
Scapula side
Sterno mastoid
Trapezius
Attachment of muscles on upper surface of clavicle
clavicular ligament
Trapezius
Scapula side
Caraco clavicular ligament
Sub clavius
Deltoid
Pectoral major
Attachment of muscles on under surface of clavicle
Serratus magnus
Scalenus posterior
Serratus magnus
Scalenus medius
Scalenus anterior
First rib
Sternum bone
Sterno-mastoid
Clavicle
Scapula
Pectoralis minor
Second rib
Attachments of muscles (Top view)
Hyoid bone
Pomum Adami
Thyroid cartilage
Crico cartilage
Thyroid gland
Trachlea
Clavicle in perspective sternum side
Steno-mastoid clavicular origin
Trapezius
levator scapula
Rhomboid minor
Rhomboid major
Back of scapula
Showing attachment of muscles

Back of scapula Showrny attachment of muscles

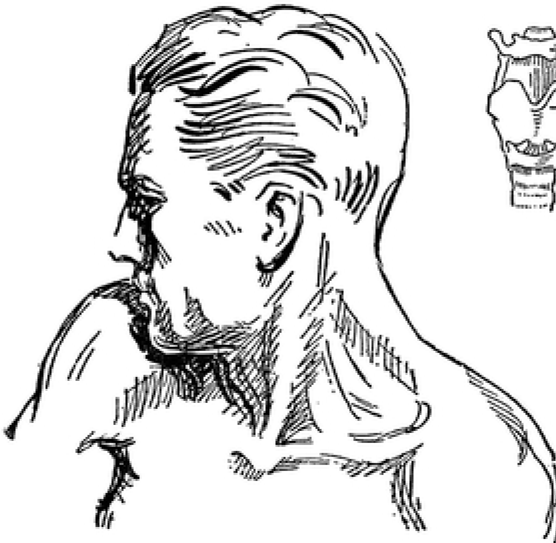


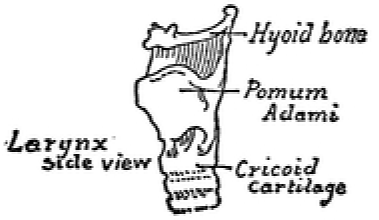

Digastric
Mylo-hyoid
Hyoid bone
Pomum Adami
Sterno-mastoid
Hyoglossus
Stylo-hyoid
Middle Constrictor
Trapezius
Omo-hyoid
Thyroid gland
Sterno-hyoid
Sterno-thyroid

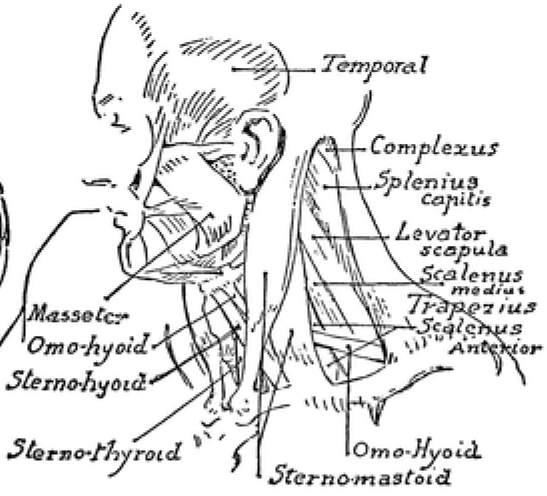

Hyoid bone
Pomum Adami
larynx front

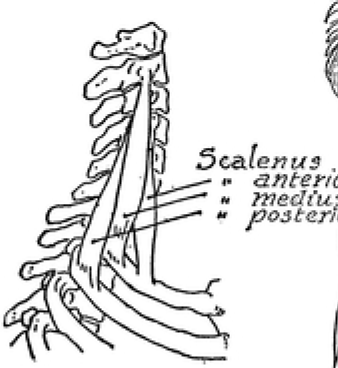

Sterno mastoid
Trapezius
Scapula Side
Deltoid
Pectoral major

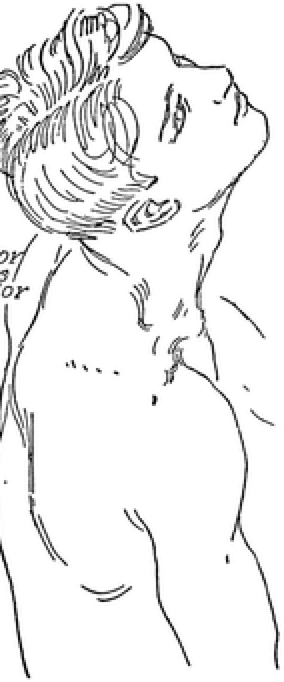
Top view of clavicle showing attachment of muscles

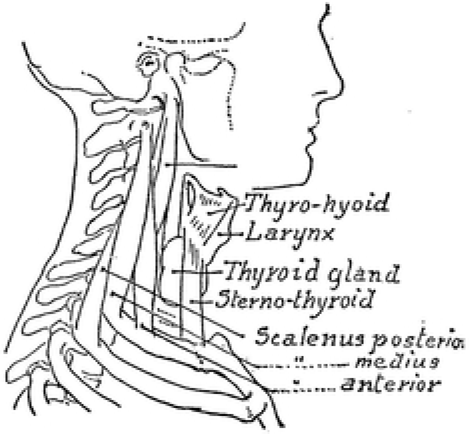


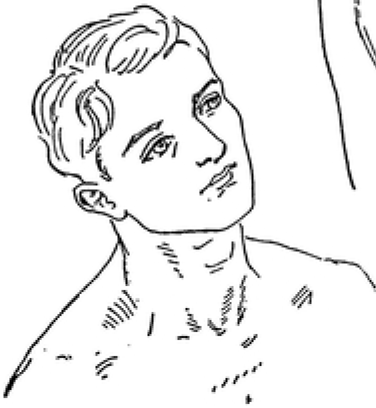

Hyoid bone
Pomum Adami
Larynx side view
Cricoid cartilage

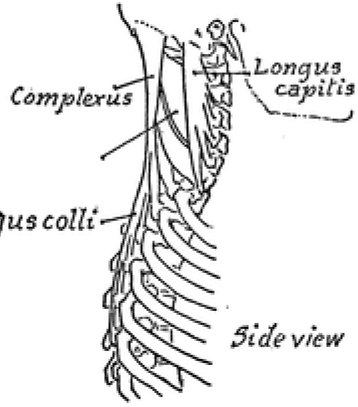

Temporal
Complexus
Splenius capitis
Levator scapula
Scalenus medius
Trapezius
Scalenus Anterior
Masseter
Omo-hyoid
Sterno-hyoid
Sterno-thyroid
Omo-Hyoid
Sterno-mastoid

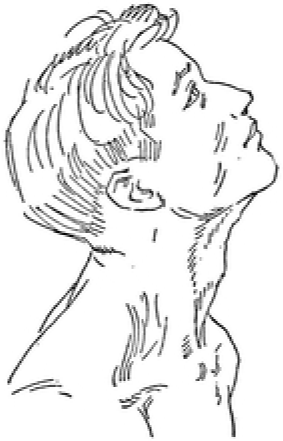

Scalenus
" anterior
" medius
" posterior

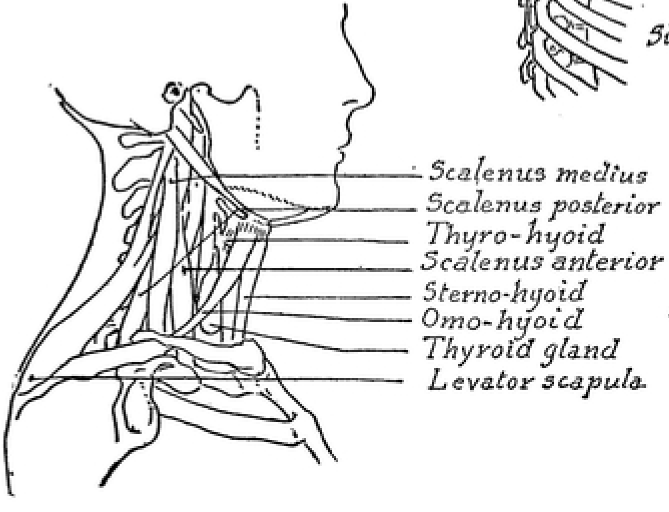


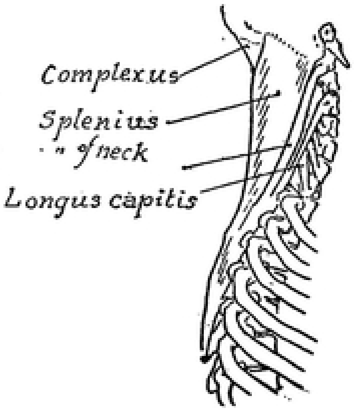

Thyro-hyoid
Larynx
Thyroid gland
Sterno-thyroid
Scalenus posterio
" medius
" anterior

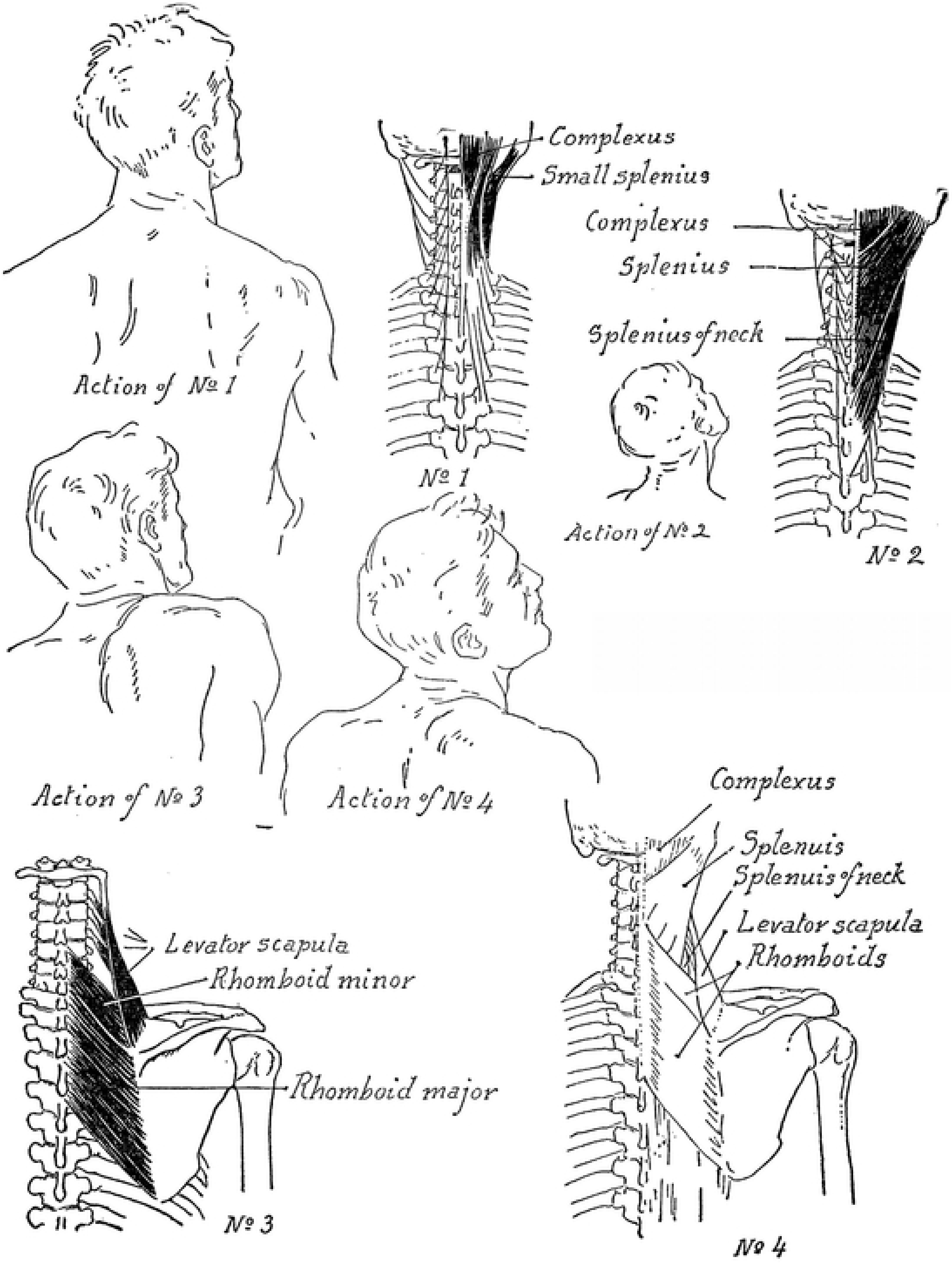



Complexus
Longus capitis
Longus colli
Side view

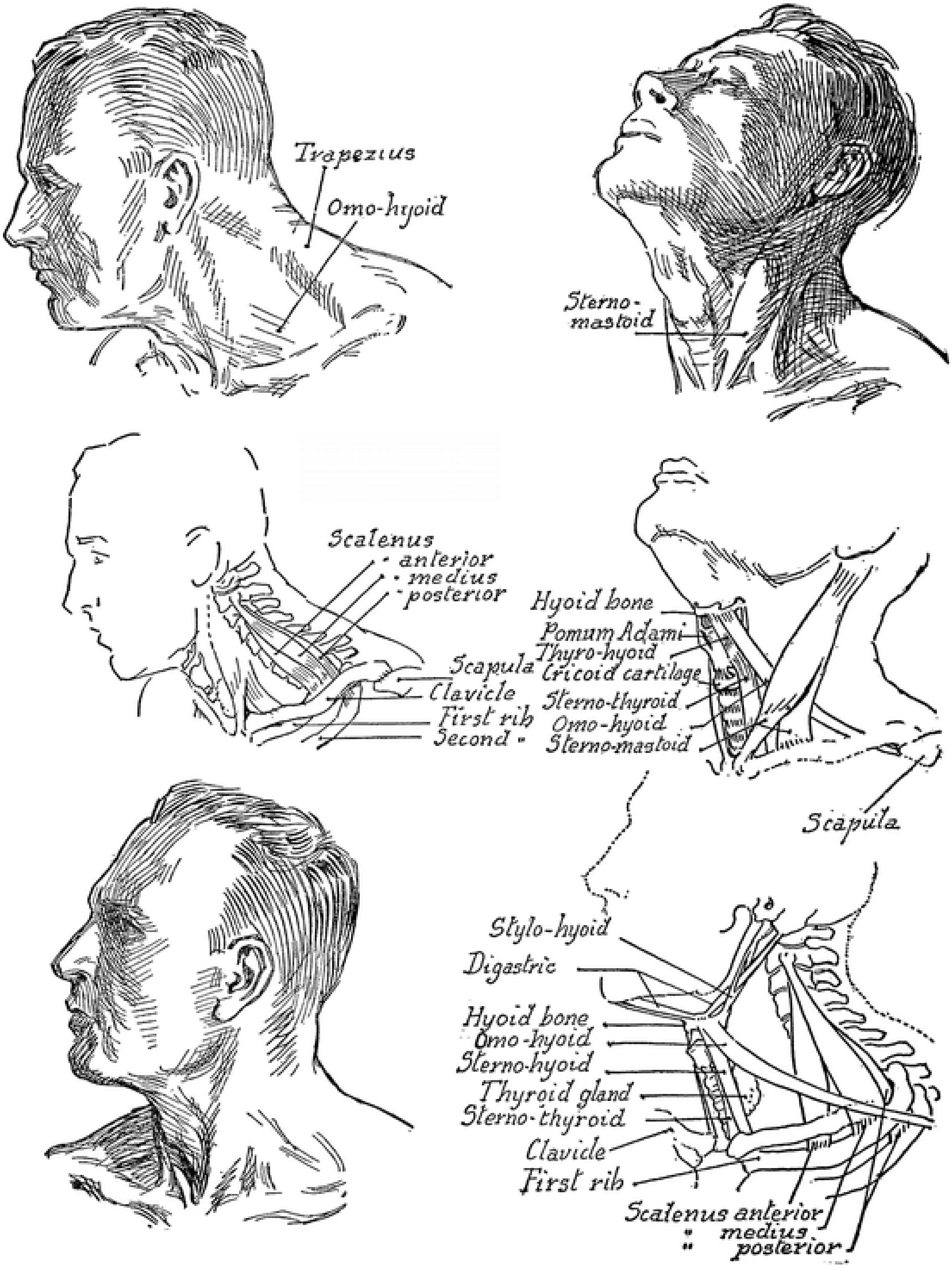



Scalenus medius
Scalenus posterior
Thyro-hyoid
Scalenus anterior
Sterno-hyoid
Omo-hyoid
Thyroid gland
Levator scapula

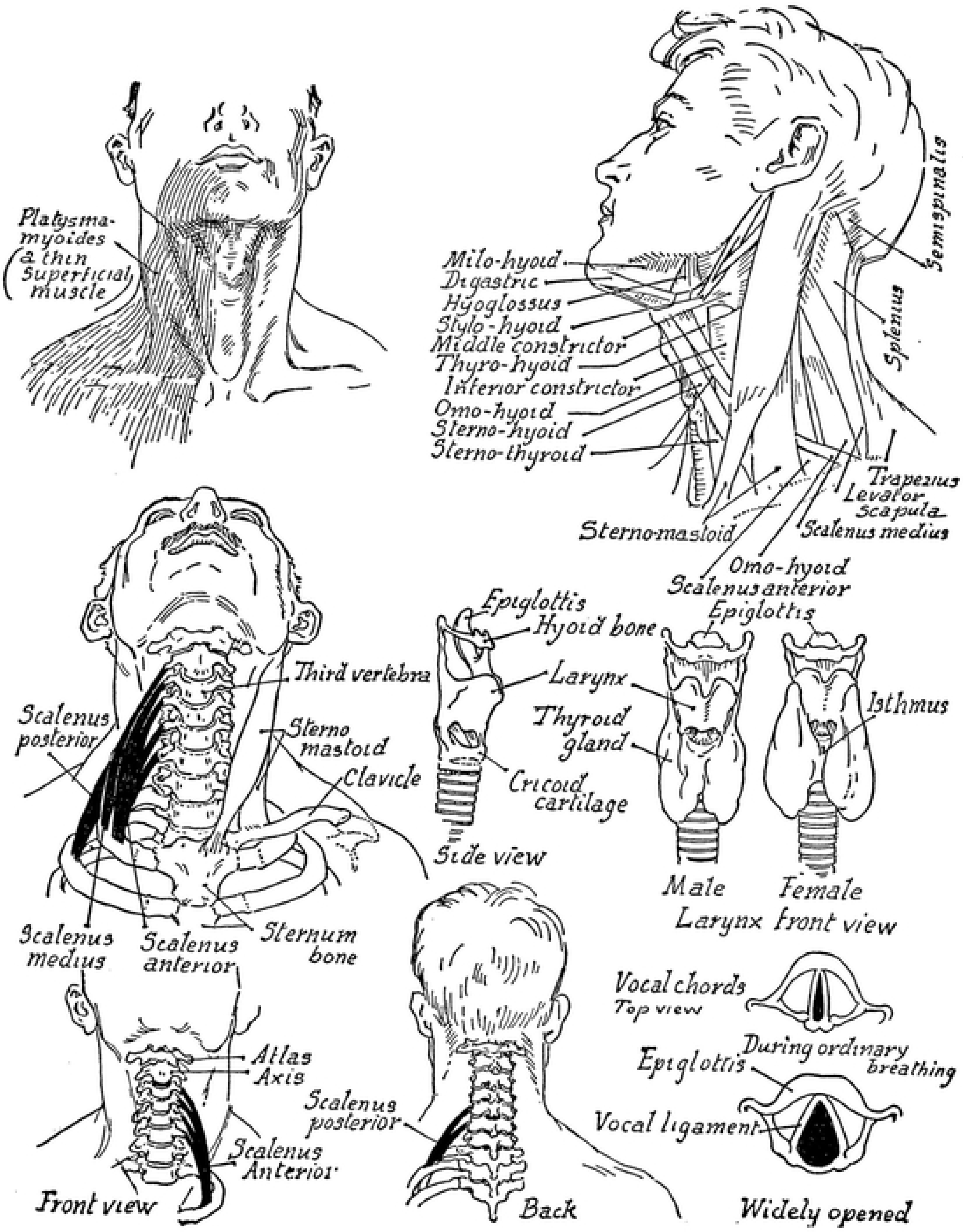

Complexus
Splenius
" of neck
Longus capitis

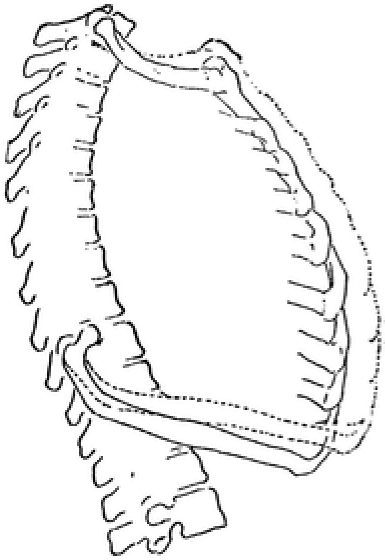

Action of № 1
Complexus
Small splenius
№ 1
Complexus
Splenius
Splenius of neck
Action of № 2
№ 2
Action of № 3
Action of № 4
Complexus
Splenuis
Splenuis of neck
Levator scapula
Rhomboids
Levator scapula
Rhomboid minor
Rhomboid major
№ 3
№ 4

Muscles of back of neck

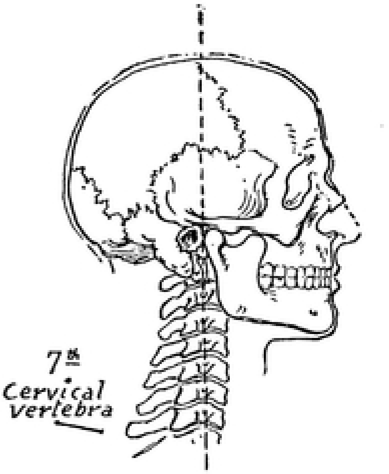

Trapezius
Omo-hyoid
Sterno-mastoid
Scalenus
anterior
medius
posterior
Scapula
Clavicle
First rib
Second "
Hyoid bone
Pomum Adami
Thyro-hyoid
Cricoid cartilage
Sterno-thyroid
Omo-hyoid
Sterno-mastoid
Scapula
Stylo-hyoid
Digastric
Hyoid bone
Omo-hyoid
Sterno-hyoid
Thyroid gland
Sterno-thyroid
Clavicle
First rib
Scalenus anterior
" medius
" posterior

The Neck

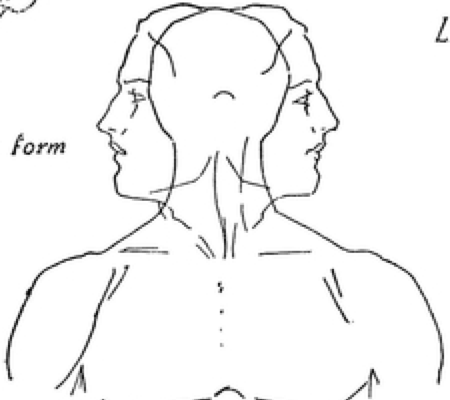

Platysma-myoides (a thin superficial muscle)
Milo-hyoid
Digastric
Hyoglossus
Stylo-hyoid
Middle constrictor
Thyro-hyoid
Inferior constrictor
Omo-hyoid
Sterno-hyoid
Sterno-thyroid
Semispinalis
Splenius
Trapezius
Levator scapula
Scalenus medius
Sterno-mastoid
Omo-hyoid
Scalenus anterior
Third vertebra
Scalenus posterior
Sterno mastoid
Clavicle
Scalenus medius
Scalenus anterior
Sternum bone
Epiglottis
Hyoid bone
Larynx
Cricoid cartilage
Side view
Epiglottis
Thyroid gland
Isthmus
Male
Female
Larynx front view
Atlas
Axis
Scalenus Anterior
Front view
Scalenus posterior
Back
Vocal chords
Top view
During ordinary breathing
Epiglottis
Vocal ligament
Widely opened



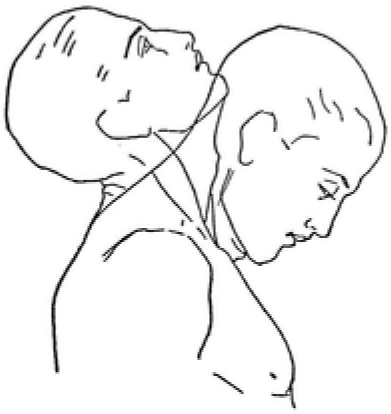
Modification of chest form in breathing

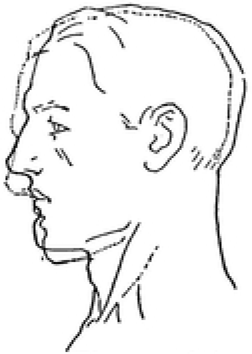

7th
Cervical vertebra

Line of gravity



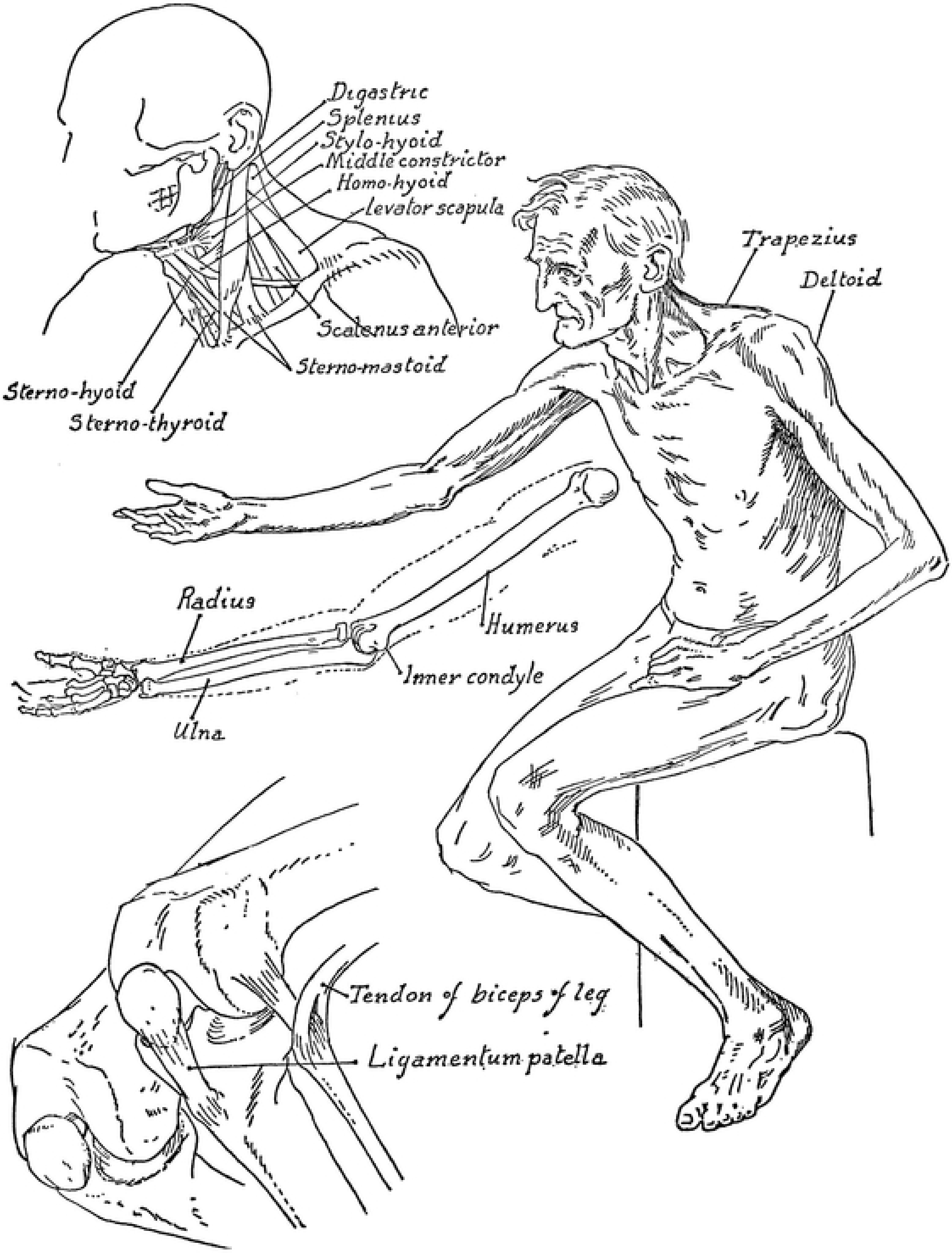
Relation of head and neck to shoulders in extreme side movements

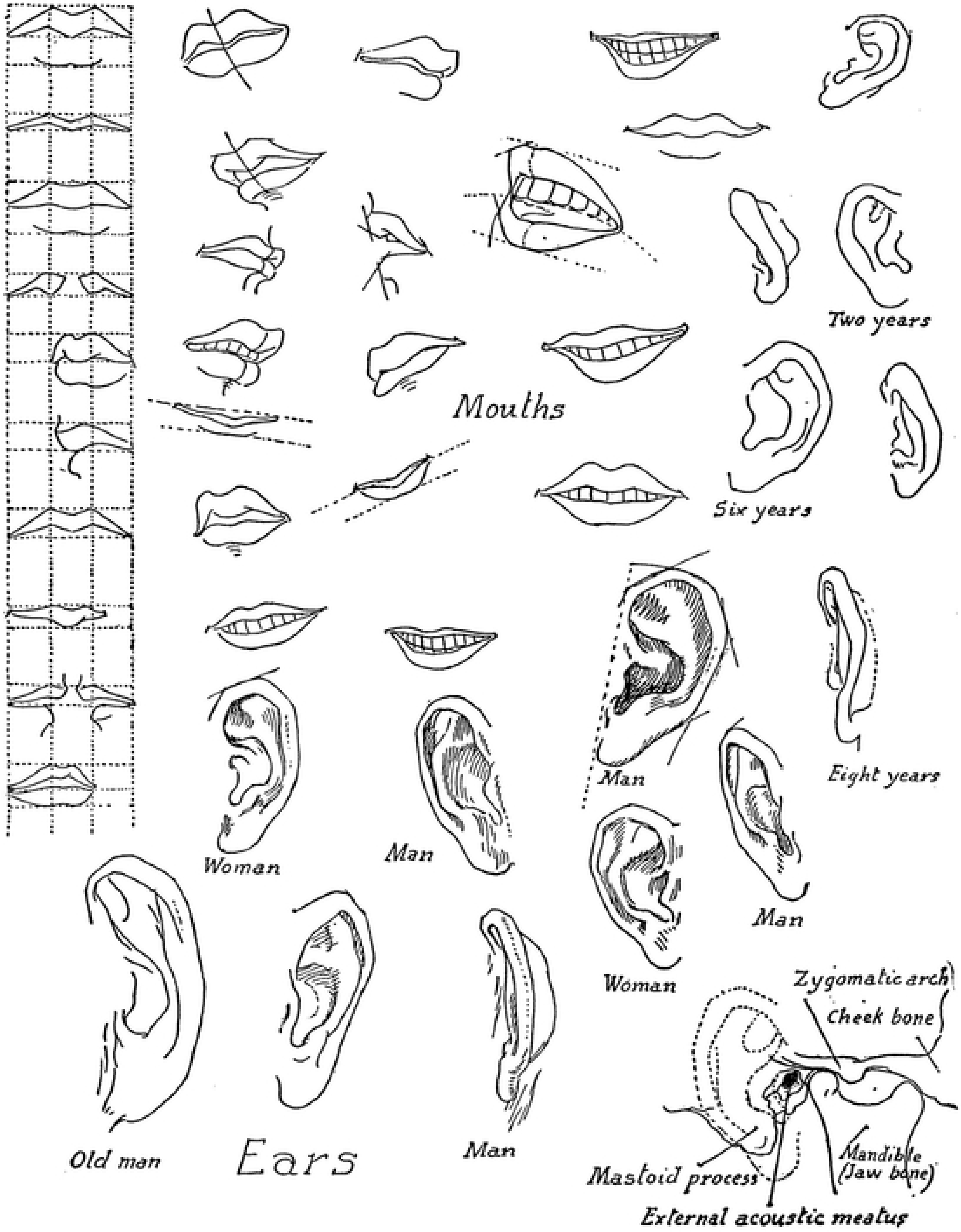




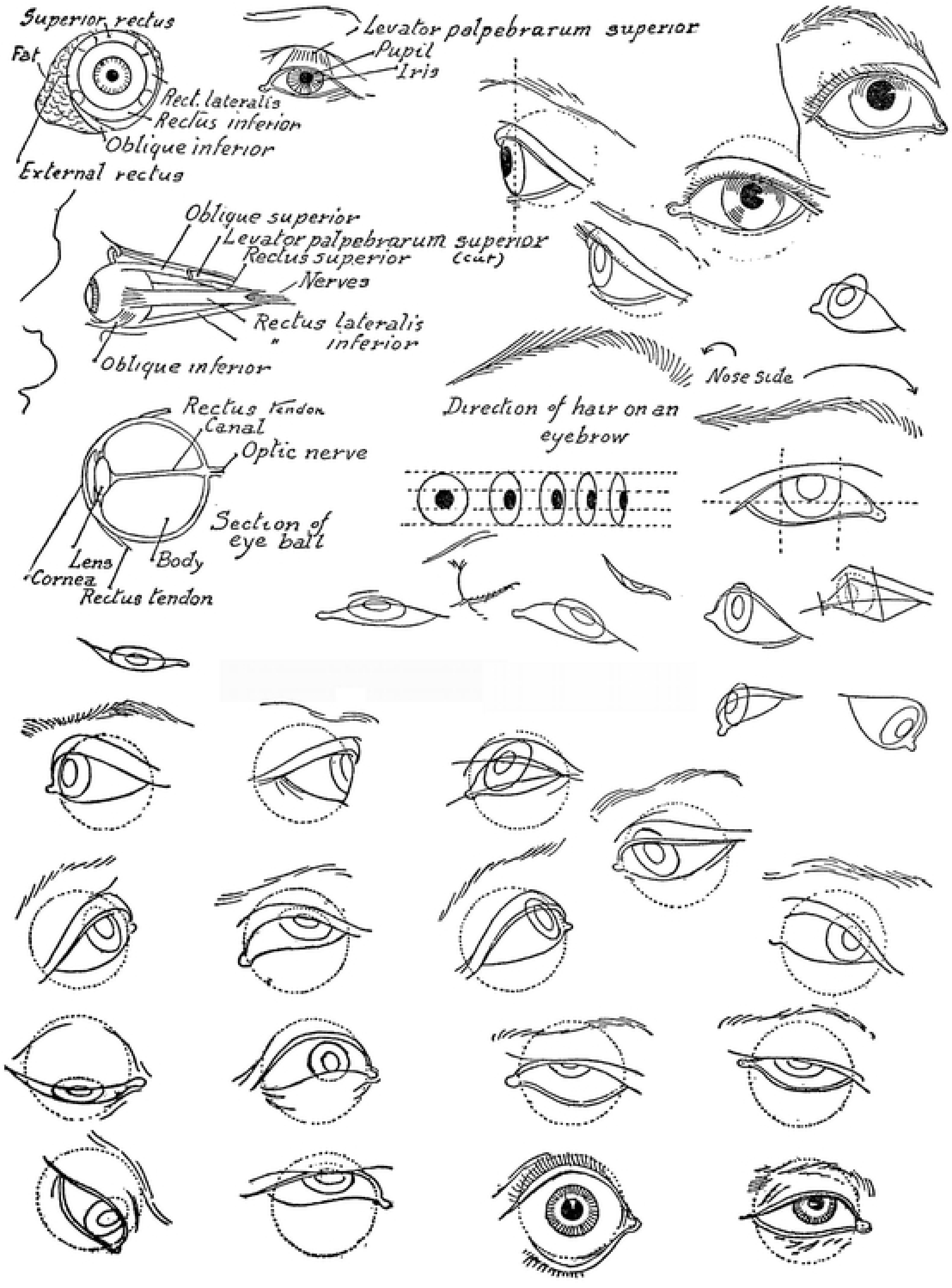
Flexion of head without moving neck

Extent of bending forward and back

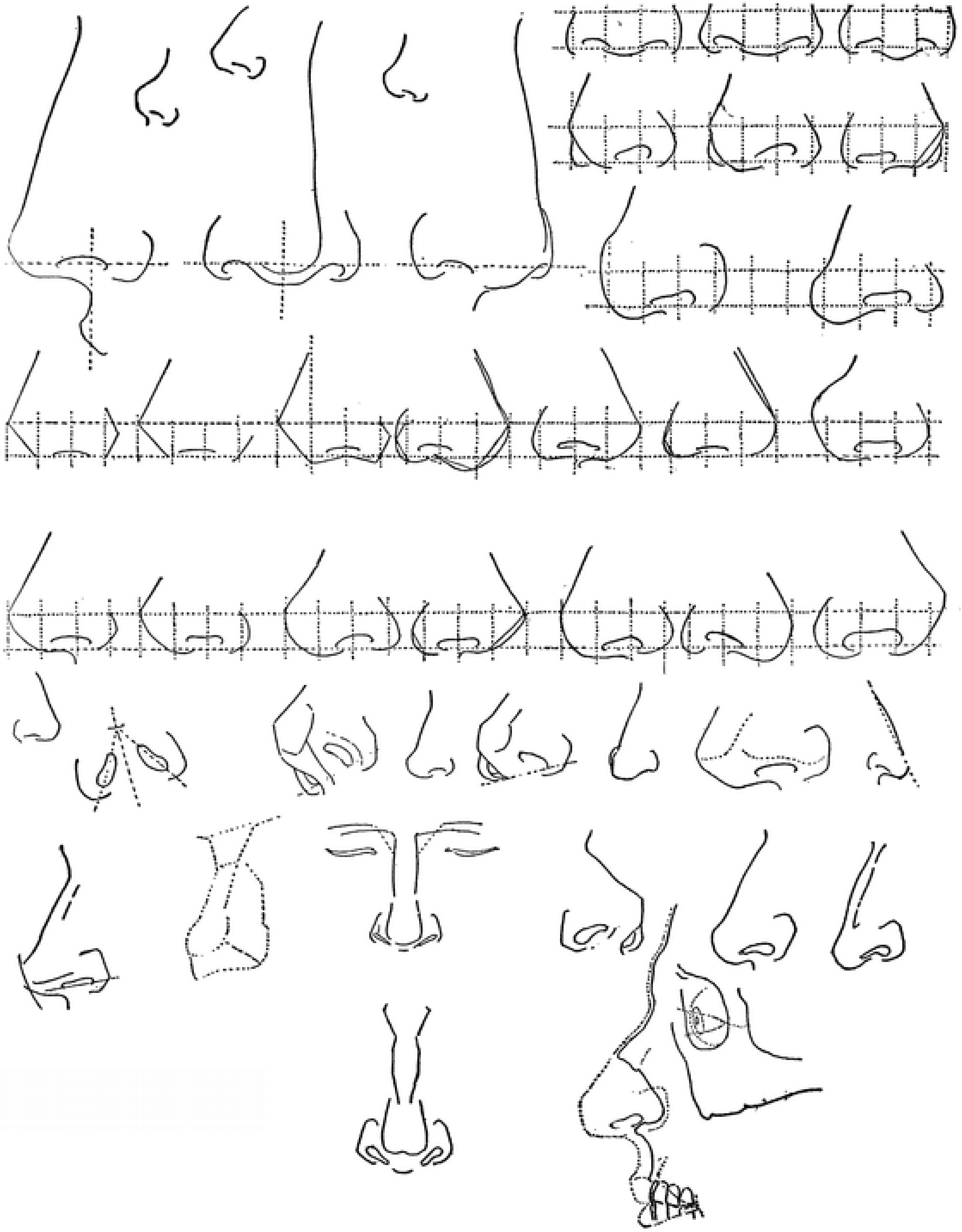

Digastric
Splenius
Stylo-hyoid
Middle constrictor
Homo-hyoid
levator scapula
Scalenus anterior
Sterno-mastoid
Sterno-hyoid
Sterno-thyroid
Trapezius
Deltoid
Radius
Humerus
Inner condyle
Ulna
Tendon of biceps of leg
Ligamentum patella


Mouths
Two years
Six years
Eight years
Man
Woman
Man
Man
Woman
Old man
Ears
Man
Zygomatic arch
Cheek bone
Mastoid process
Mandible (Jaw bone)
External acoustic meatus

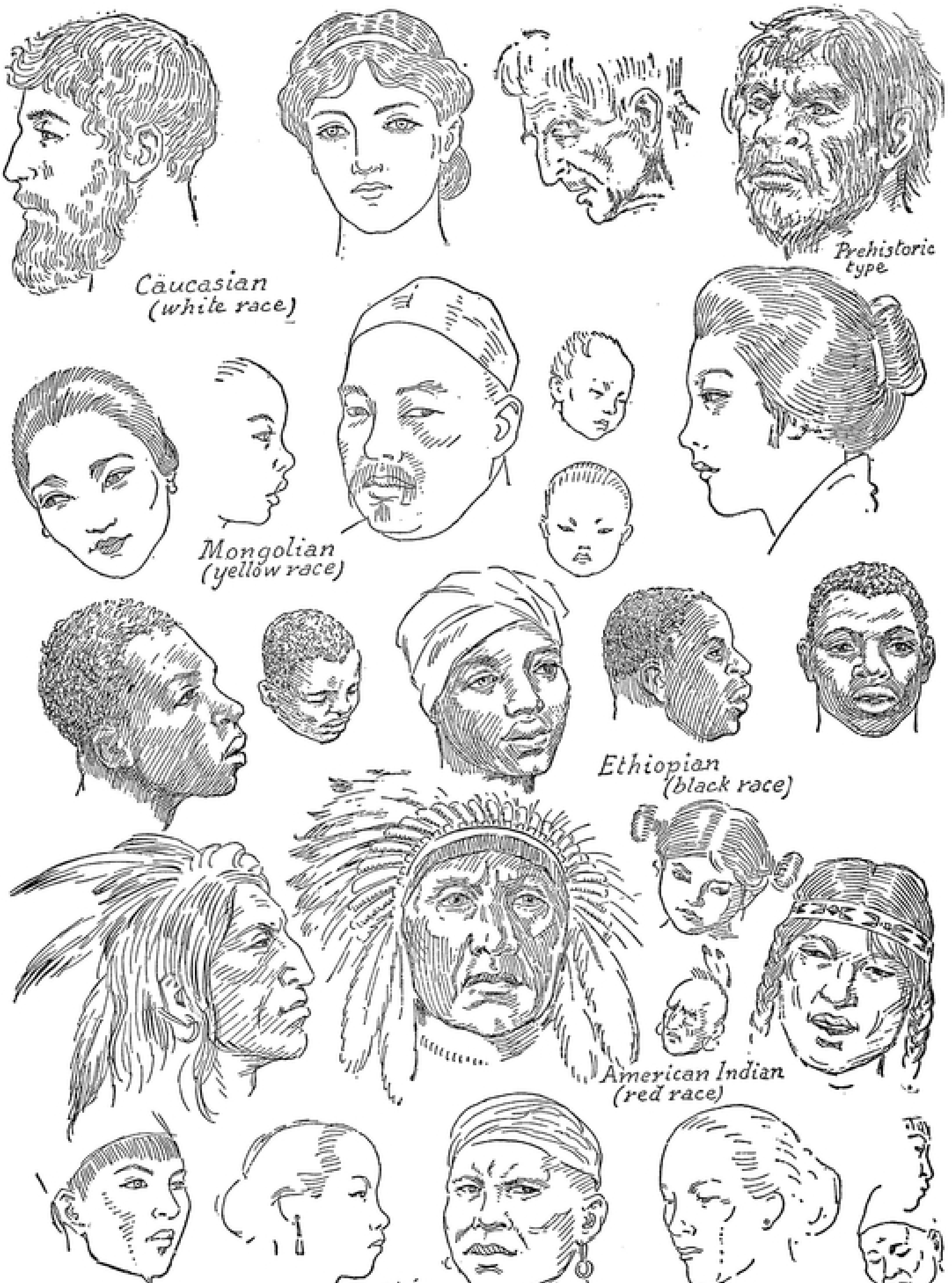
Ears


Superior rectus
Fat
Levator palpebrarum superior
Pupil
Iris
Rect. lateralis
Rectus inferior
Oblique inferior
External rectus
Oblique superior
Levator palpebrarum superior
(cut)
Rectus superior
Nerves
Rectus lateralis
" inferior
Oblique inferior
Nose side
Direction of hair on an eyebrow
Rectus tendon
Canal
Optic nerve
Section of eye ball
Lens
Cornea
Body
Rectus tendon

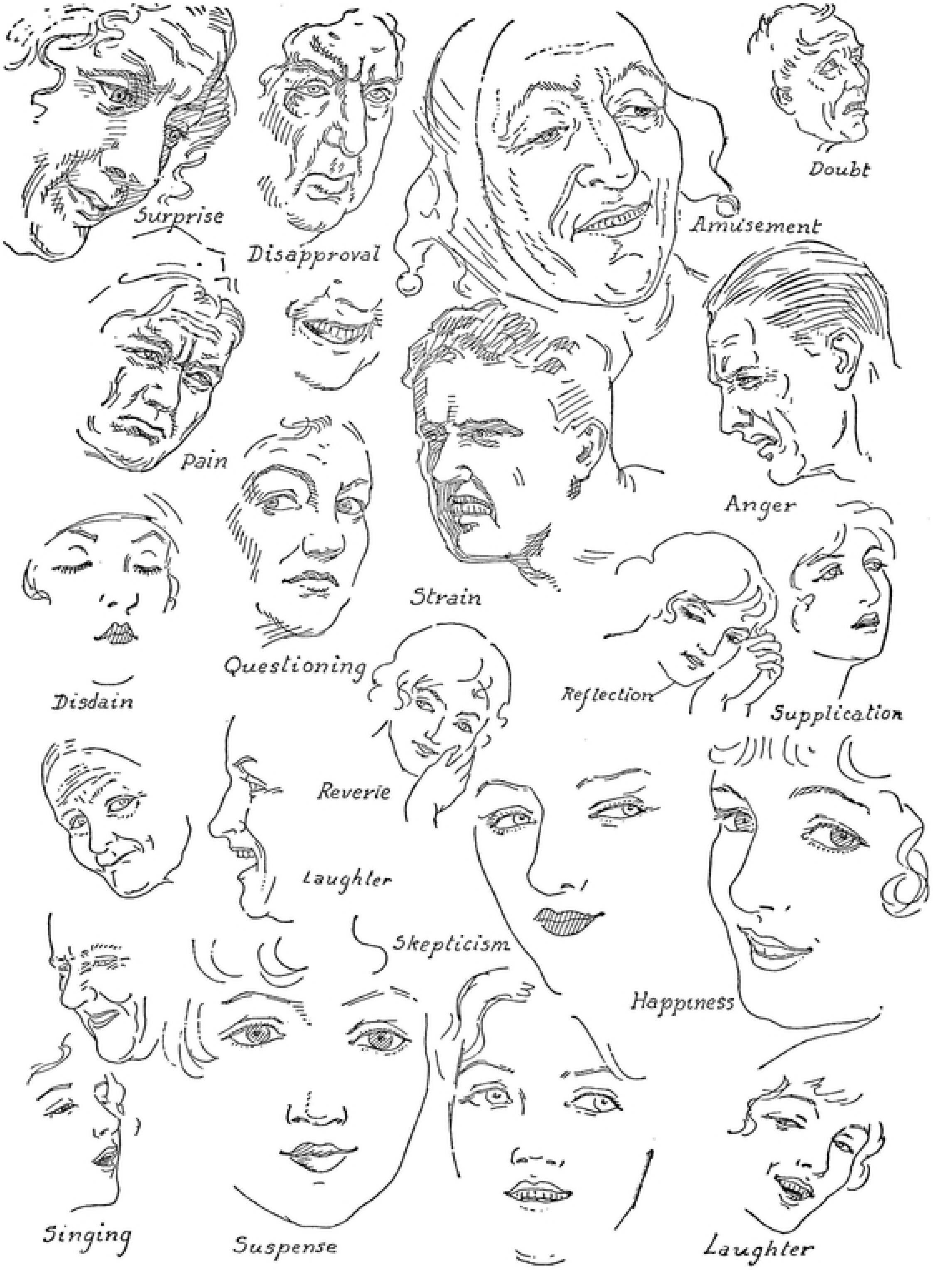
EYES (PRINCIPLES & ACTION)

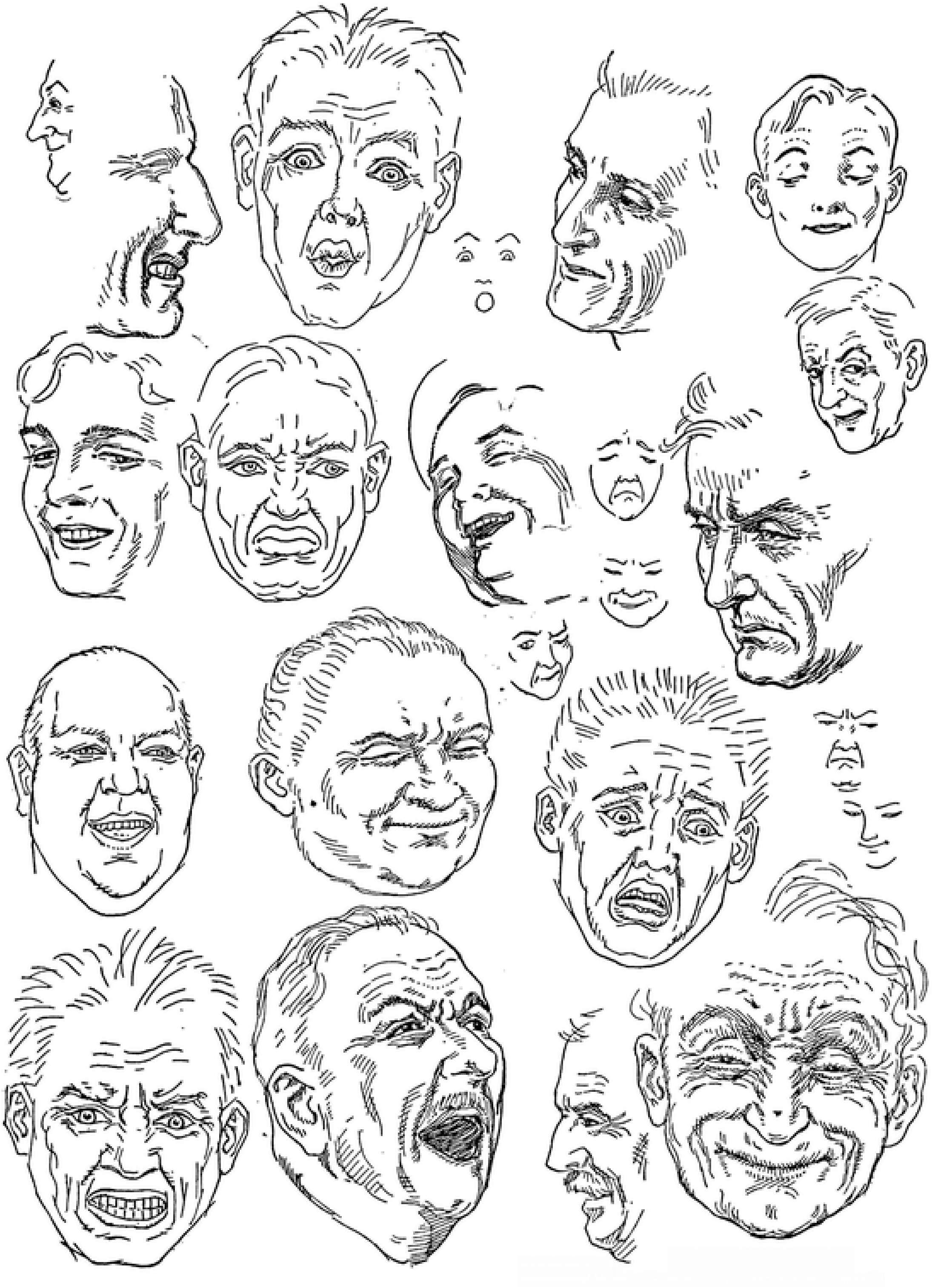


The Nose

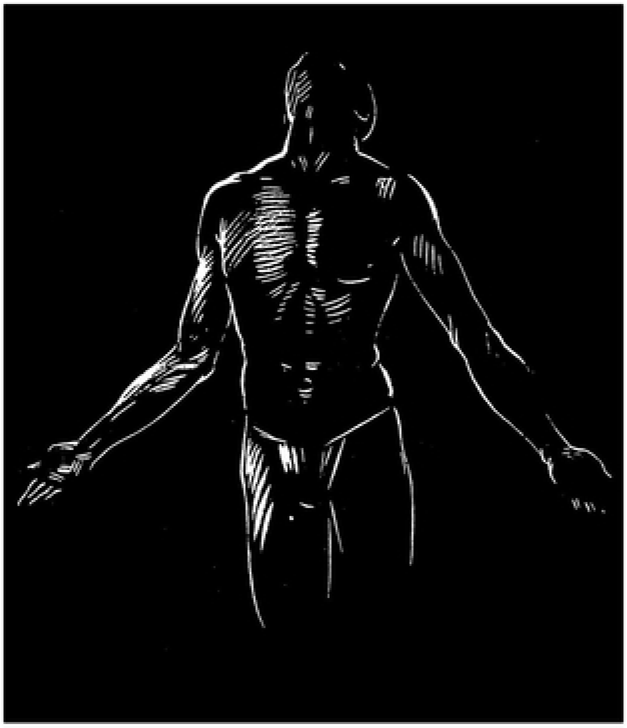

Caucasian
(white race)
Prehistoric type
Mongolian
(yellow race)
Ethiopian
(black race)
American Indian
(red race)
Malayan
(brown race)

The five races of man


Surprise
Disapproval
Amusement
Doubt
Pain
Anger
Strain
Questioning
Disdain
Reflection
Supplication
Reverie
Laughter
Skepticism
Happiness
Singing
Suspense
Laughter

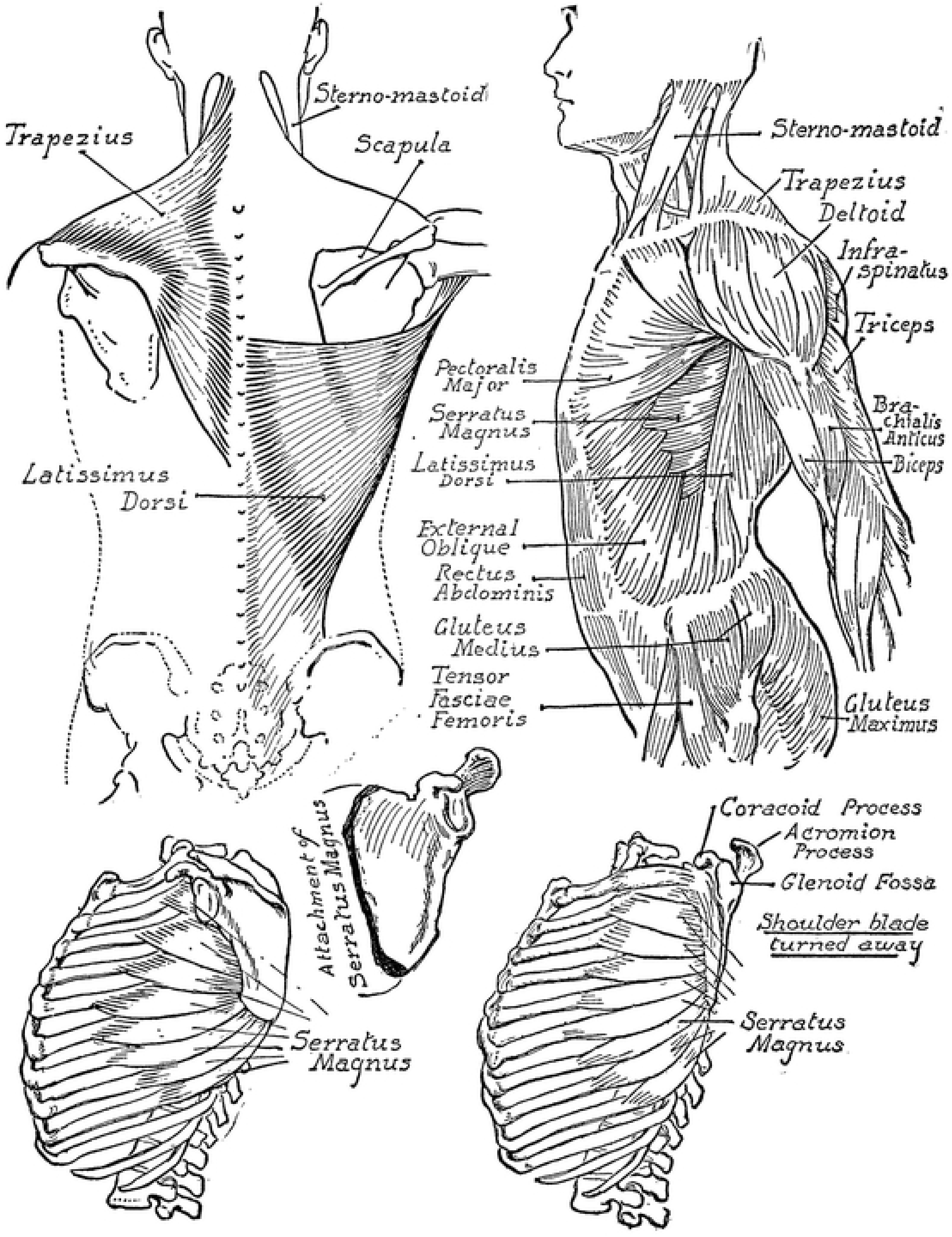


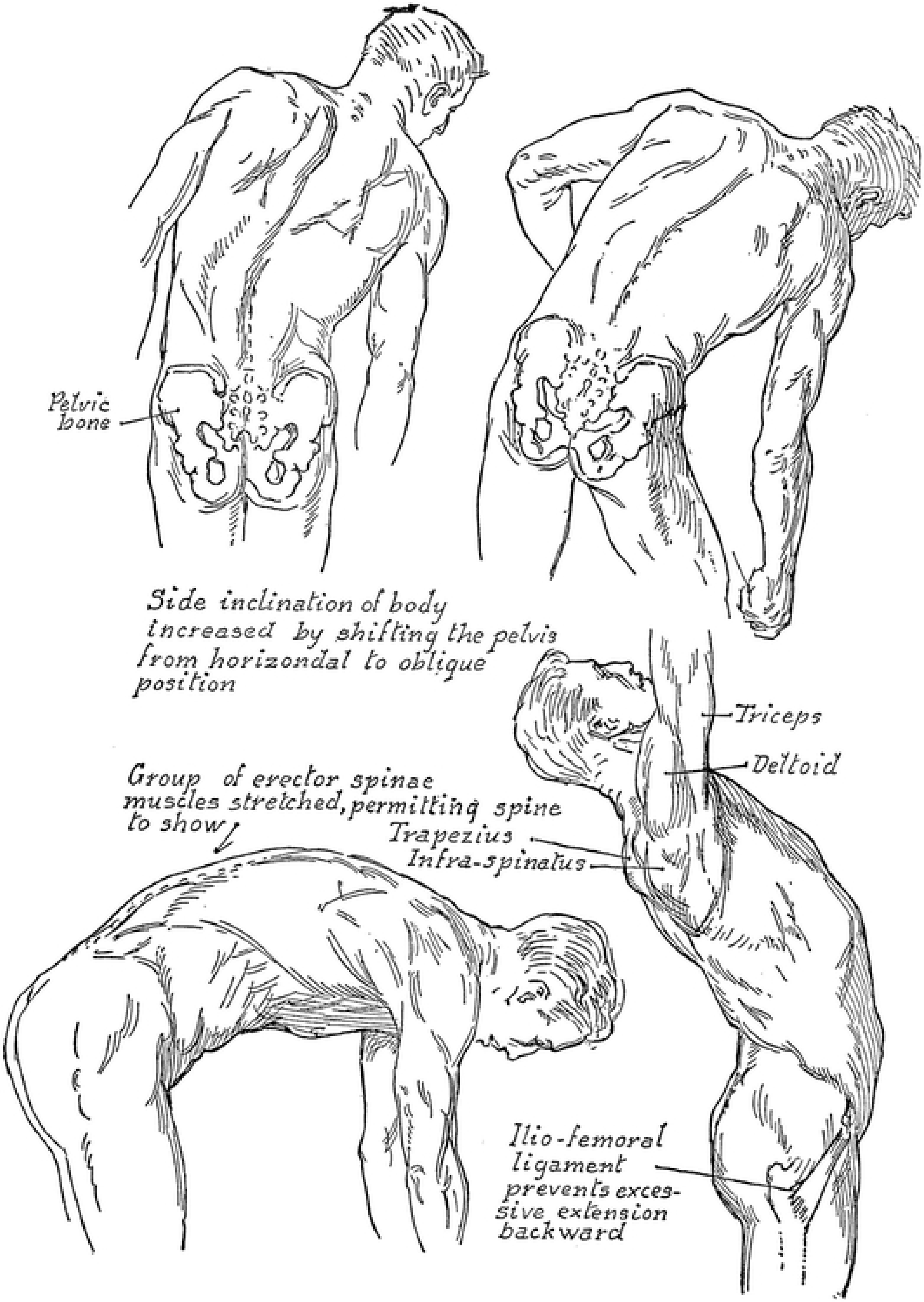
Studies of Expression



PART FOUR

THE TORSO


Sterno-mastoid
Trapezius
Scapula
Latissimus Dorsi
Sterno-mastoid
Trapezius
Deltoid
Infra-spinatus
Triceps
Pectoralis Major
Serratus Magnus
Latissimus Dorsi
Bra-chialis Anticus
Biceps
External Oblique
Rectus Abdominis
Gluteus Medius
Tensor Fasciae Femoris
Gluteus Maximus
Attachment of Serratus Magnus
Serratus Magnus
Coracoid Process
Acromion Process
Glenoid Fossa
Shoulder blade turned away
Serratus Magnus

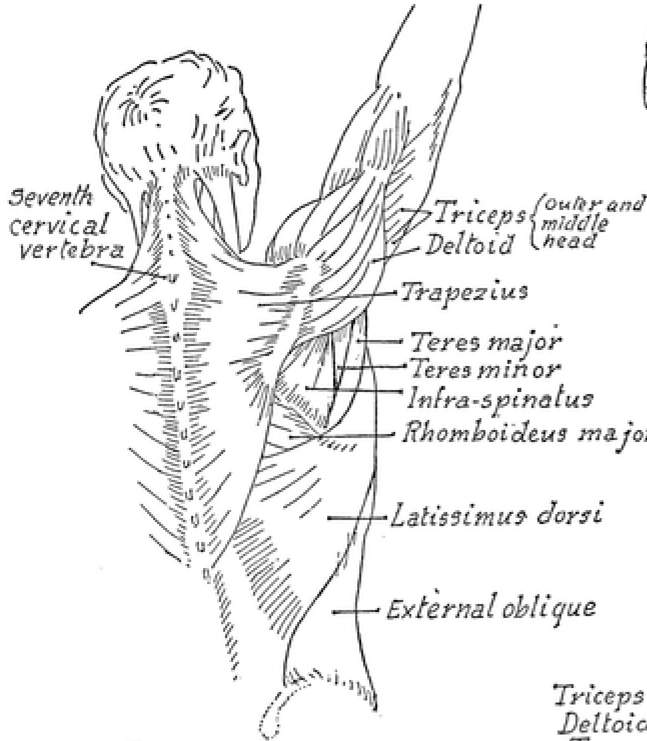


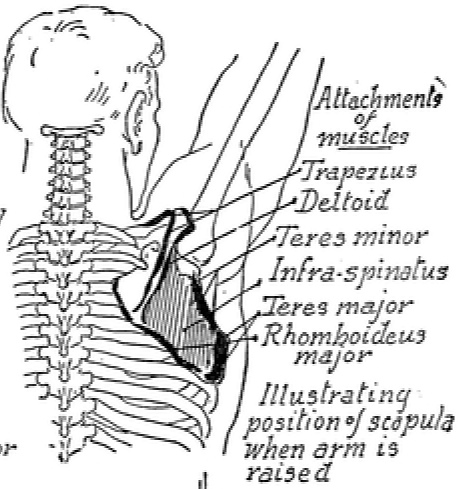
Side inclination of body increased by shifting the pelvis from horizondal to oblique position

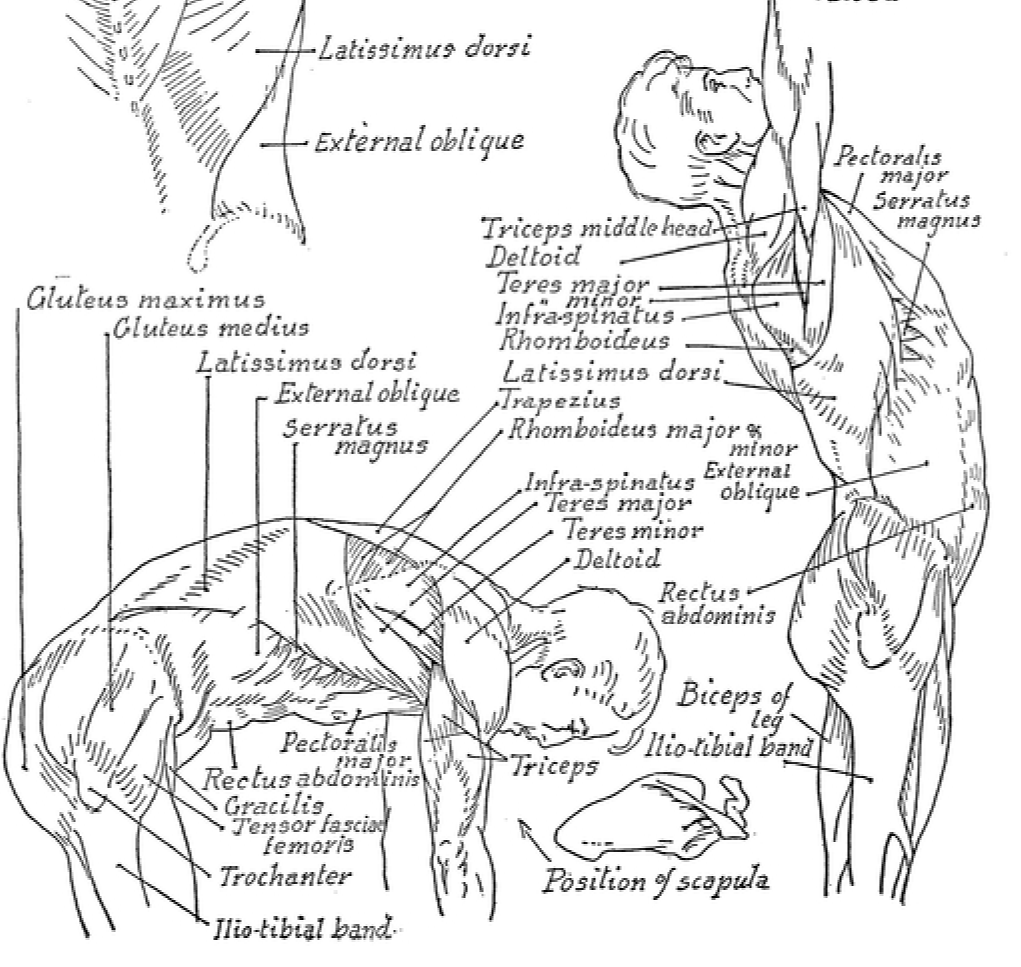
Group of erector spinae muscles stretched, permitting spine to show

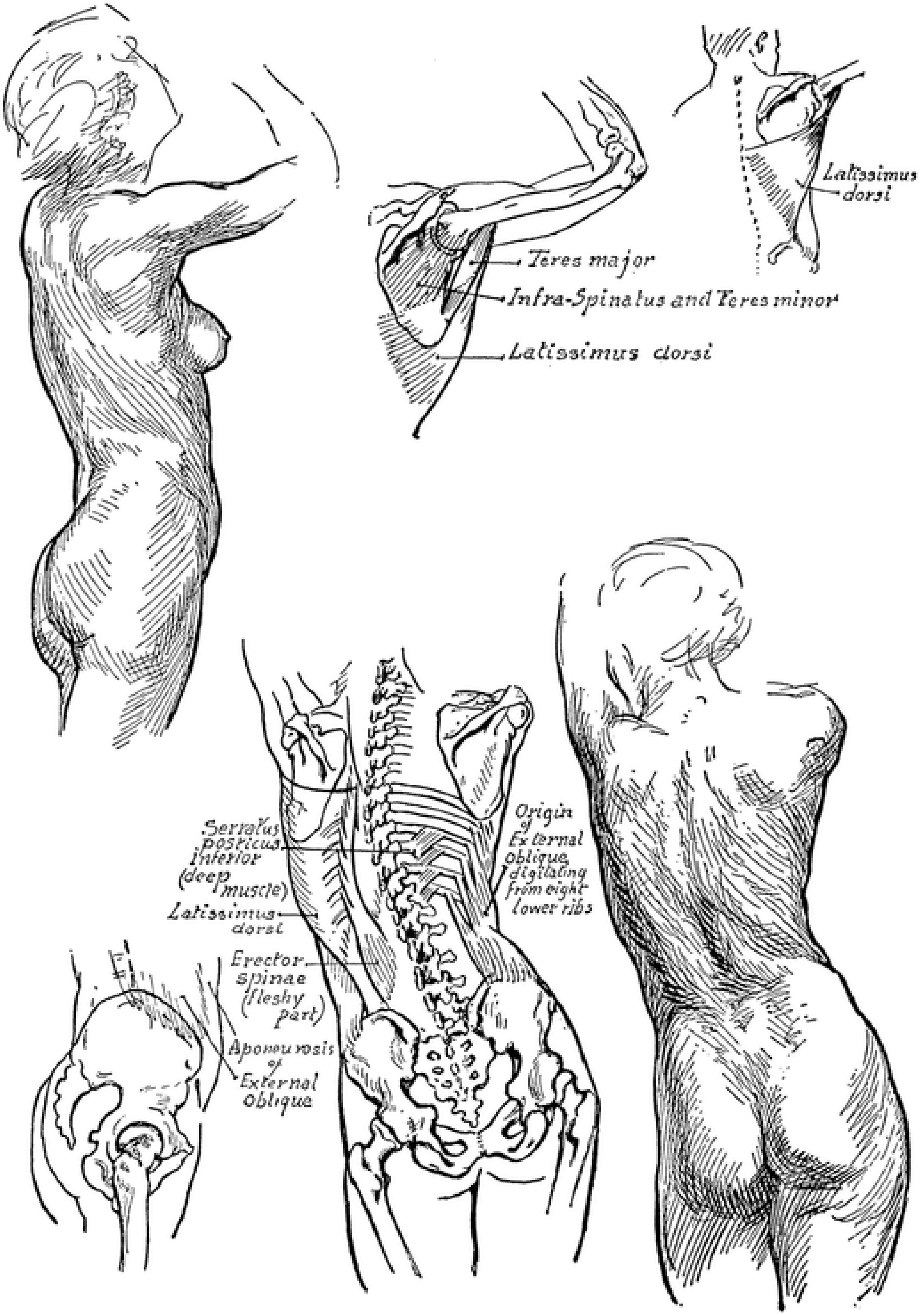
Ilio-femoral ligament prevents excessive extension backward

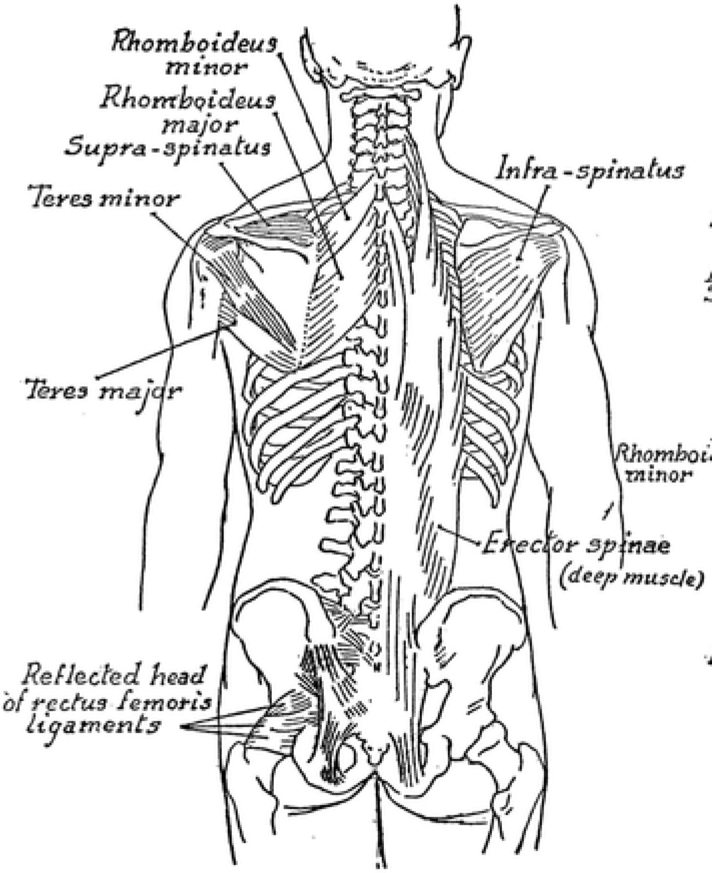
Pelvic bone
Triceps
Deltoid
Trapezius
Infra-spinatus

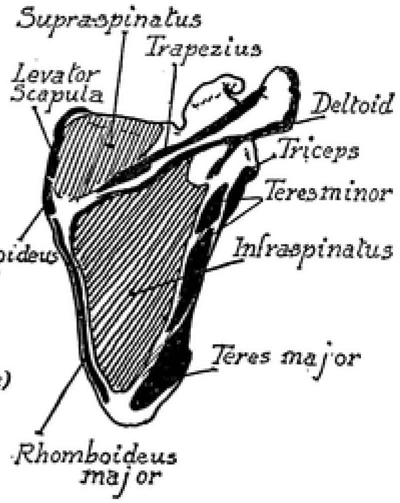

Seventh cervical vertebra
Triceps {outer and middle head
Deltoid
Trapezius
Teres major
Teres minor
Infra-spinatus
Rhomboideus major
Latissimus dorsi
External oblique

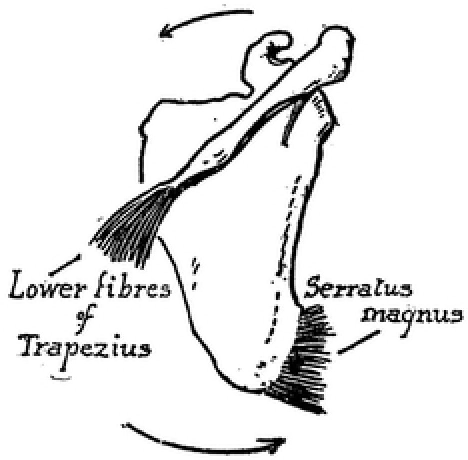

Attachments of muscles
Trapezius
Deltoid
Teres minor
Infra-spinatus
Teres major
Rhomboideus major
Illustrating position of scapula when arm is raised

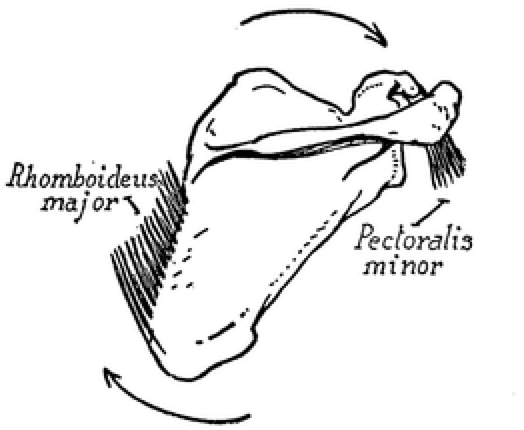

Pectoralis major
Serratus magnus
Triceps middle head
Deltoid
Teres major
minor
Infra-spinatus
Rhomboideus
Latissimus dorsi
External oblique
Rectus abdominis
Biceps of leg
Ilio-tibial band
Gluteus maximus
Gluteus medius
Latissimus dorsi
External oblique
Serratus magnus
Trapezius
Rhomboideus major & minor
Infra-spinatus
Teres major
Teres minor
Deltoid
Pectoralis major
Triceps
Rectus abdominis
Gracilis
Tensor fasciae femoris
Trochanter
Ilio-tibial band
Position of scapula

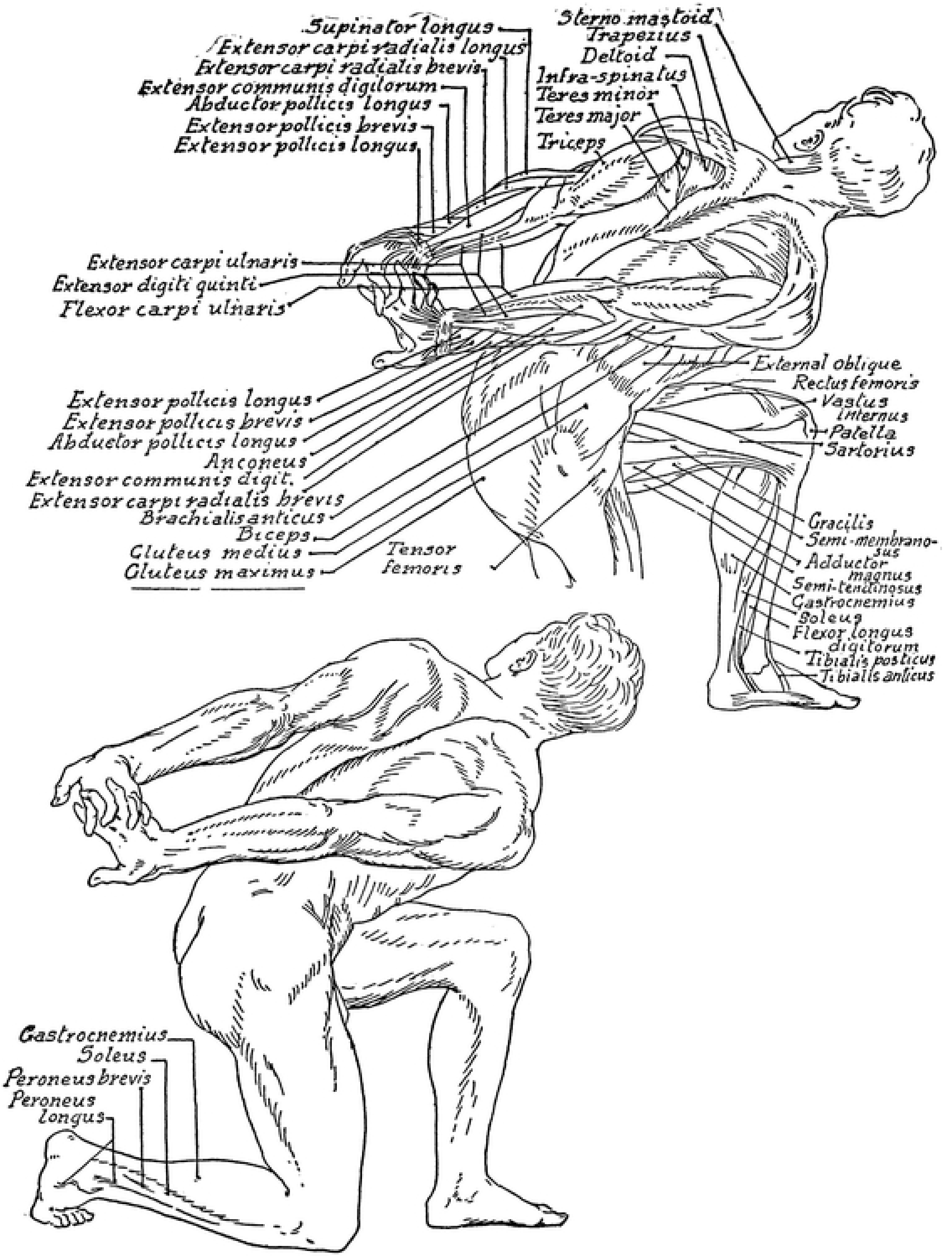

Teres major
Infra-Spinatus and Teres minor
Latissimus dorsi
Latissimus dorsi
Serratus posticus Inferior (deep muscle)
Latissimus dorsi
Erector spinae (fleshy part)
Aponeurosis of External oblique
Origin of External oblique digitating from eight lower ribs

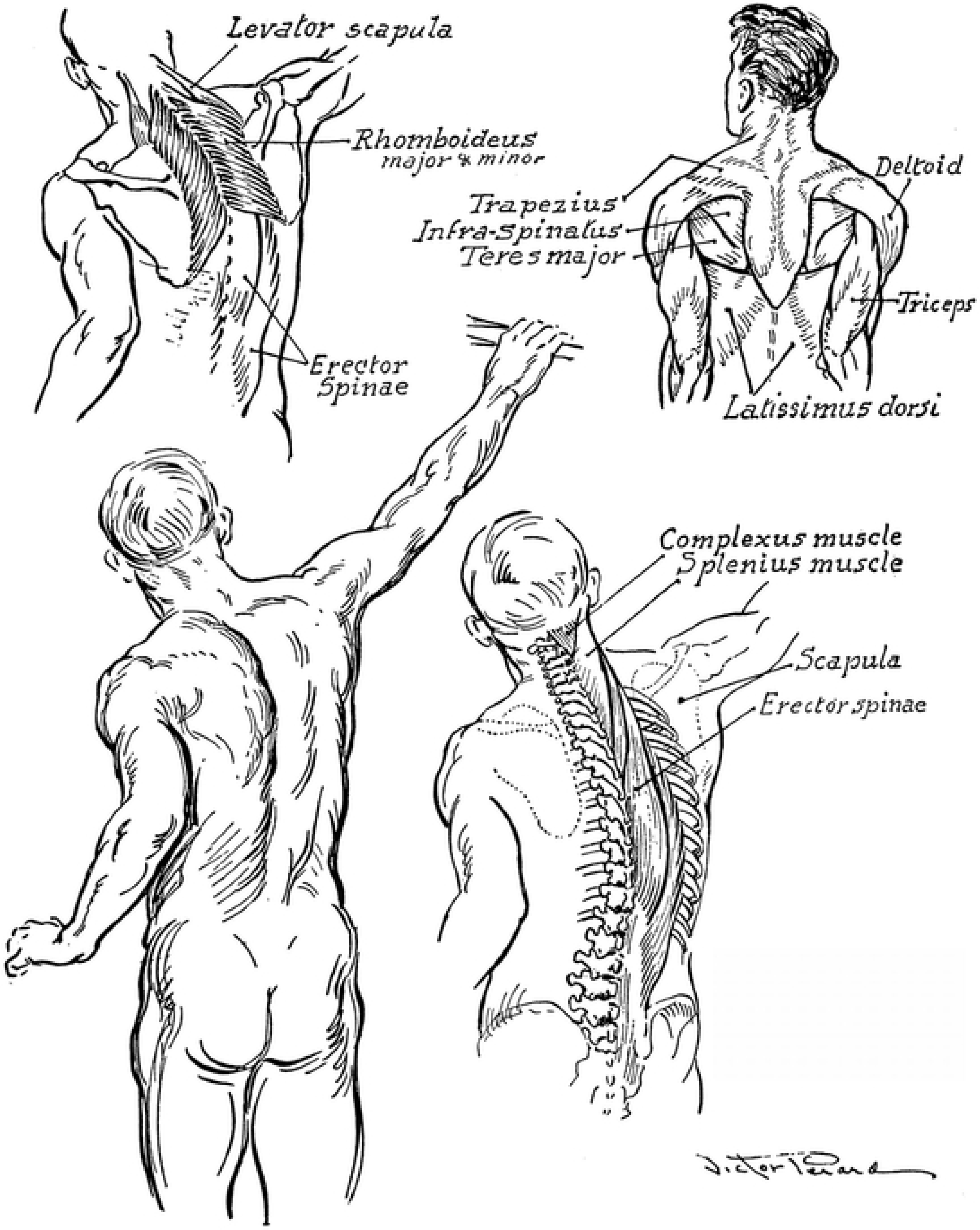

Rhomboideus minor
Rhomboideus major
Supra-spinatus
Teres minor
Infra-spinatus
Teres major
Erector spinae (deep muscle)
Reflected head of rectus femoris ligaments


Supraspinatus
Trapezius
Levator Scapula
Deltoid
Triceps
Teres minor
Rhomboideus minor
Infraspinatus
Teres major
Rhomboideus major

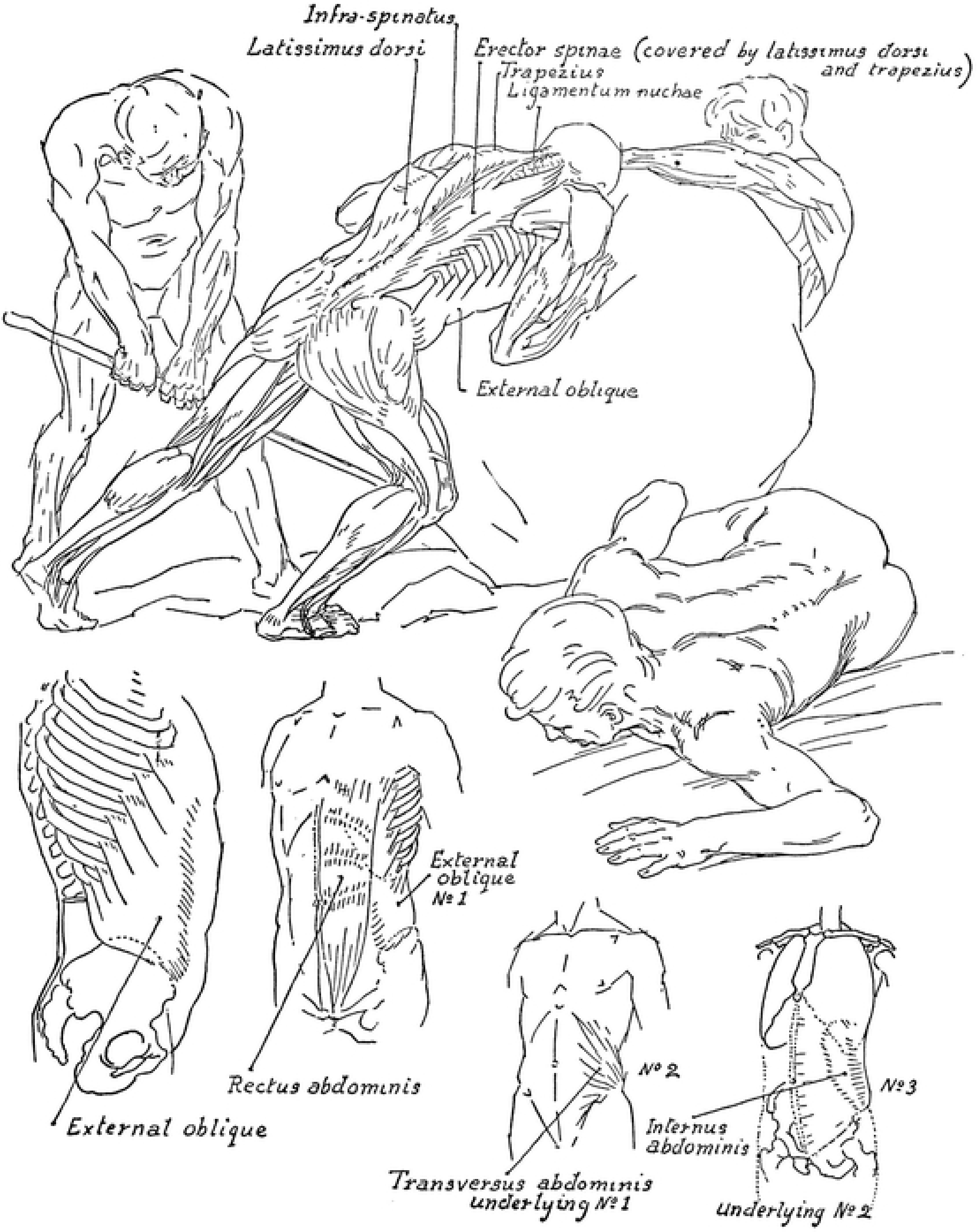

Lower fibres of Trapezius
Serratus magnus

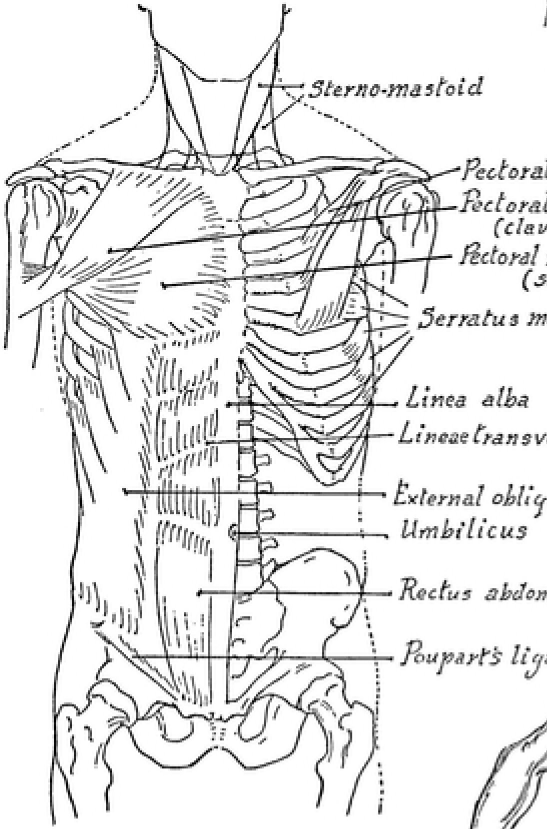

Rhomboideus major
Pectoralis minor

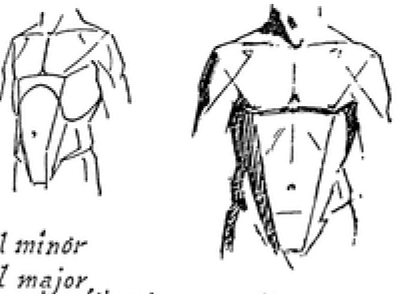

Supinator longus
Extensor carpi radialis longus
Extensor carpi radialis brevis
Extensor communis digitorum
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Sterno mastoid
Trapezius
Deltoid
Infra-spinatus
Teres minor
Teres major
Triceps
Extensor carpi ulnaris
Extensor digiti quinti
Flexor carpi ulnaris
External oblique
Rectus femoris
Vastus internus
Patella
Sartorius
Extensor pollicis longus
Extensor pollicis brevis
Abductor pollicis longus
Anconeus
Extensor communis digit.
Extensor carpi radialis brevis
Brachialis anticus
Biceps
Gluteus medius
Gluteus maximus
Tensor femoris
Gracilis
Semi-membranosus
Adductor magnus
Semi-tendinosus
Gastrocnemius
Soleus
Flexor longus digitorum
Tibialis posticus
Tibialis anticus
Gastrocnemius
Soleus
Peroneus brevis
Peroneus longus


Levator scapula
Rhomboideus major & minor
Erector Spinae
Trapezius
Infra-spinatus
Teres major
Deltoid
Triceps
Latissimus dorsi
Complexus muscle
Splenius muscle
Scapula
Erector spinae

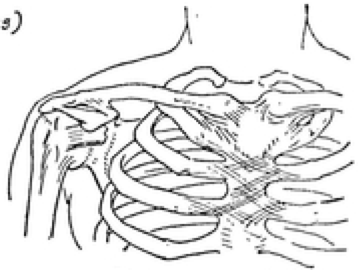
MUSCLES of the BACK


Infra-spinatus
Latissimus dorsi
Erector spinae (covered by latissimus dorsi and trapezius)
Trapezius
Ligamentum nuchae
External oblique
External oblique № 1
Rectus abdominis
External oblique
№ 2
№ 3
Internus abdominis
Transversus abdominis underlying № 1
Underlying № 2

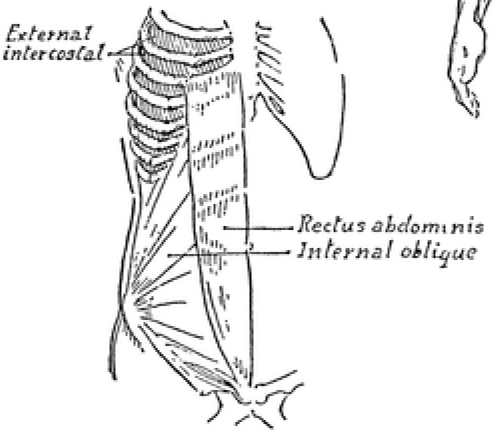

Sterno-mastoid
Pectoral minor
Pectoral major (clavicular fibres)
Pectoral major (sternal fibres)
Serratus magnus
Linea alba
Lineae transversae
External oblique
Umbilicus
Rectus abdominis
Poupart's ligament

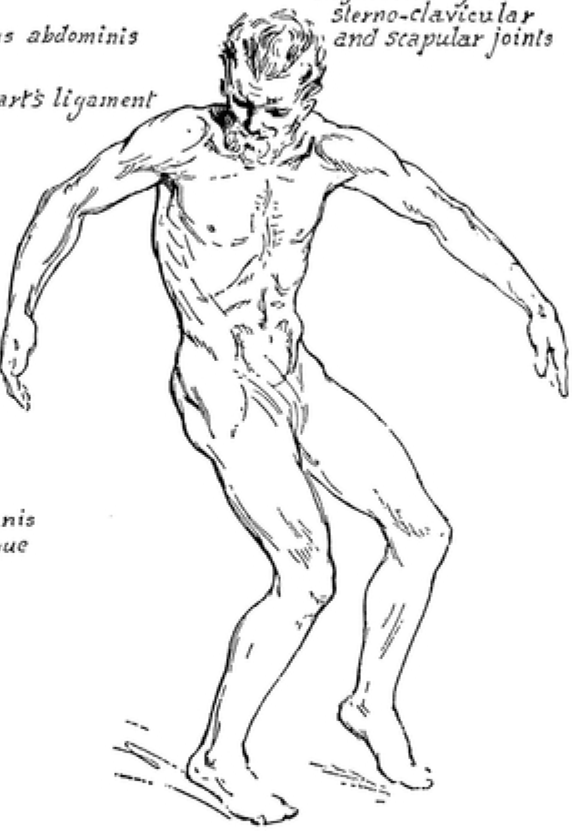


Planes

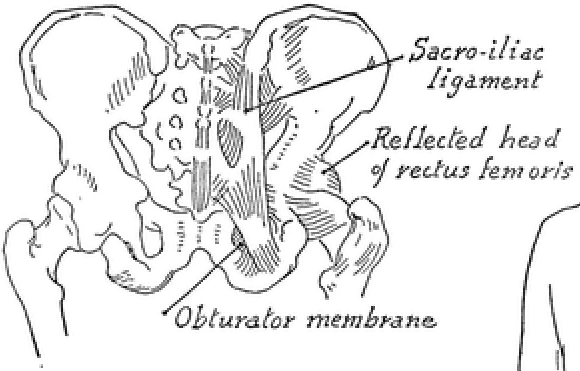


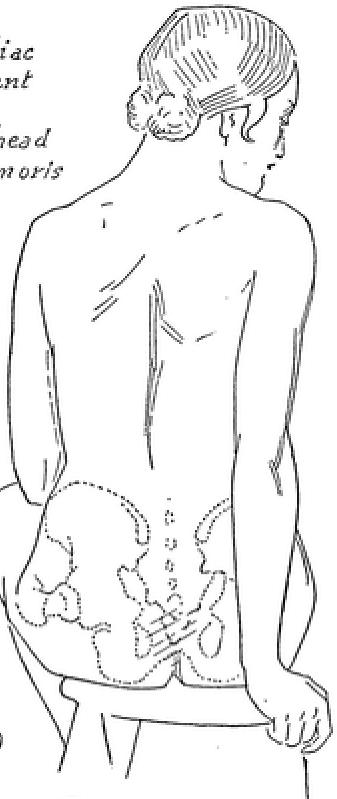
Ligaments of the sterno-clavicular and scapular joints

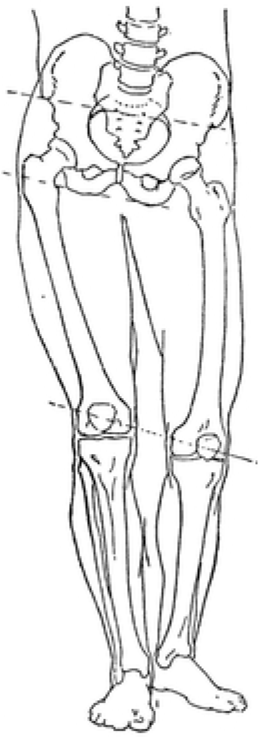

External intercostal
Rectus abdominis
Internal oblique

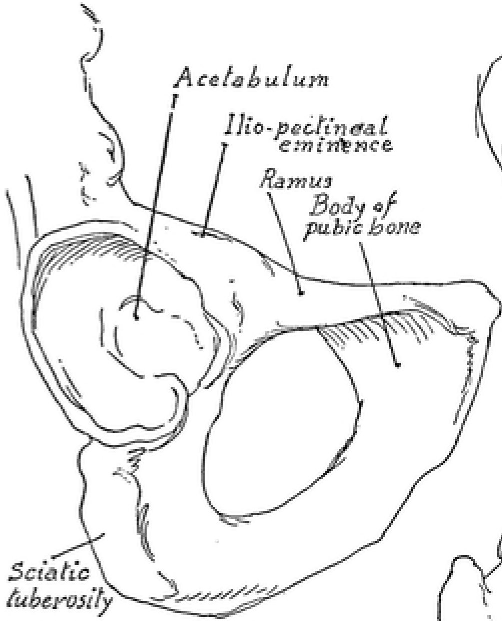


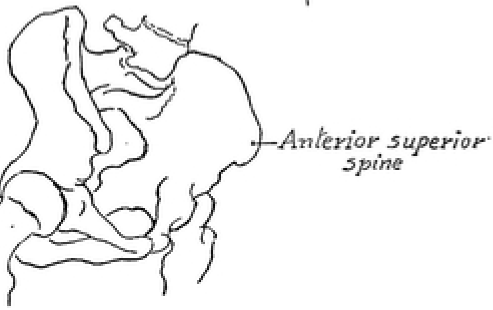
Victor Perard

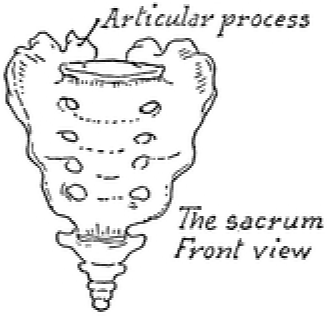

Sacro-iliac ligament
Reflected head of rectus femoris
Obturator membrane

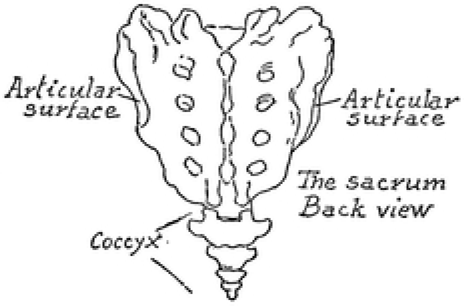




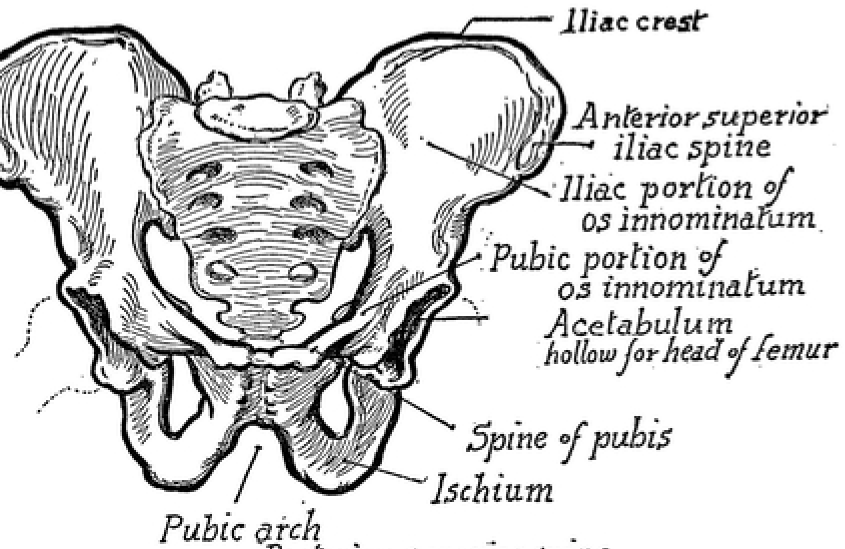

Acetabulum
Ilio-pectineal eminence
Ramus
Body of pubic bone
Sciatic tuberosity


Anterior superior spine

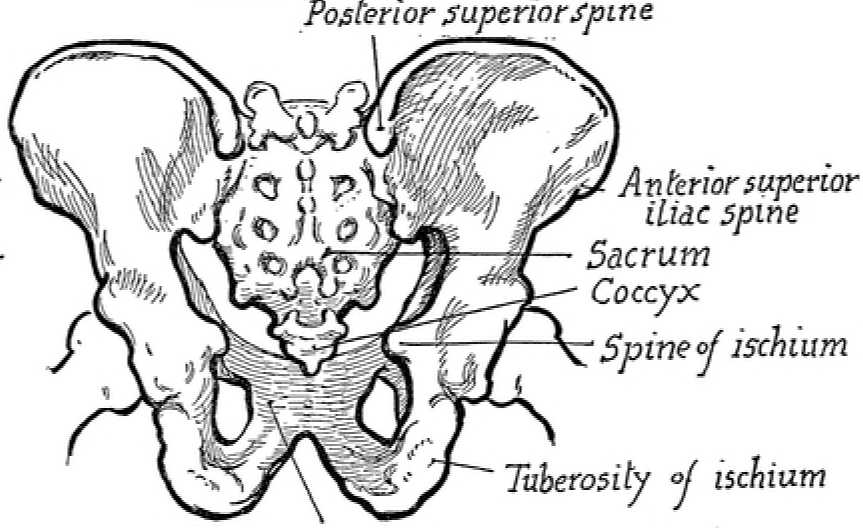

Articular process
The sacrum Front view

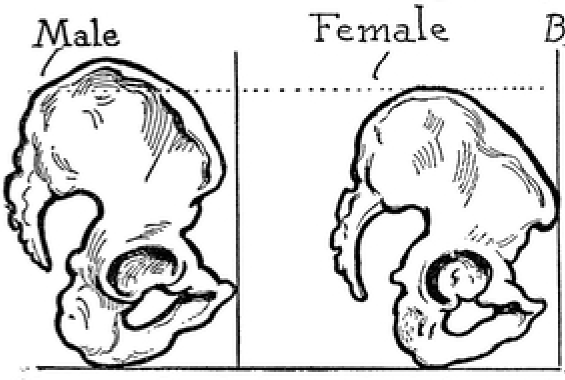

Articular surface
Articular surface
The sacrum Back view
Coccyx

Male Pelvis
Front view

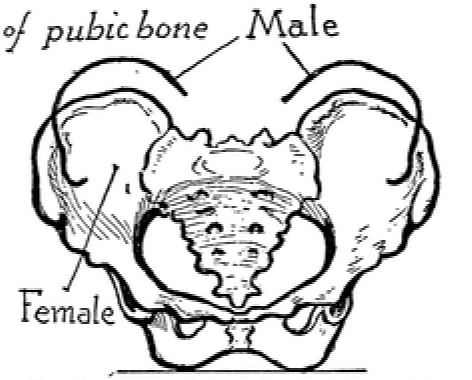

Iliac crest
Anterior superior iliac spine
Iliac portion of os innominatum
Pubic portion of os innominatum
Acetabulum hollow for head of femur
Spine of pubis
Ischium
Pubic arch

Male Pelvis
Back View

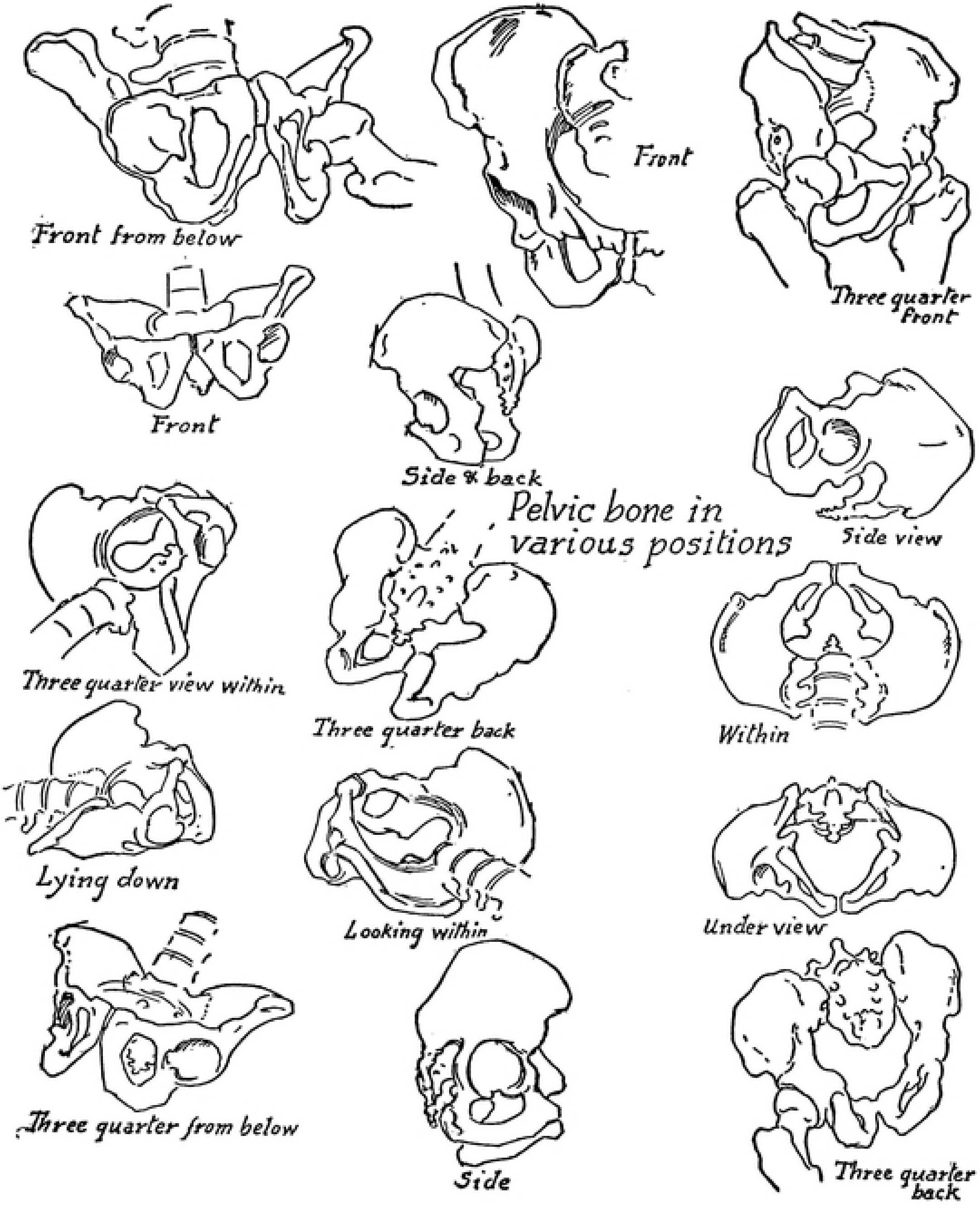

Posterior superior spine
Anterior superior iliac spine
Sacrum
Coccyx
Spine of ischium
Tuberosity of ischium
Body of pubic bone


Male
Female

Showing female bone tilted forward


Male
Female

Difference of height and breadth



Pelvic bone in various positions

Front from below

Front

Three quarter front

Front

Side & back

Side view

Three quarter view within

Three quarter back

Within

Lying down

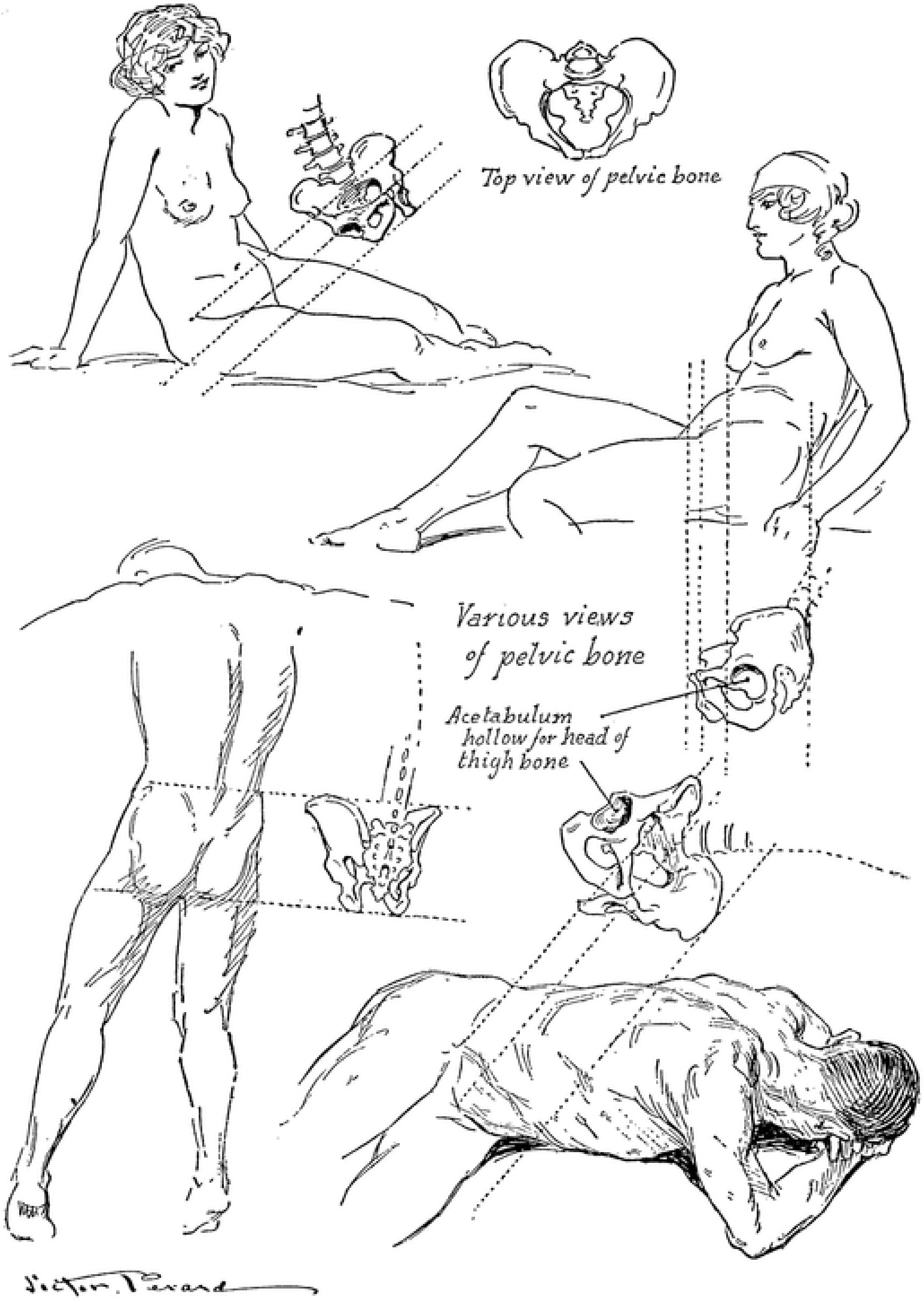
Looking within

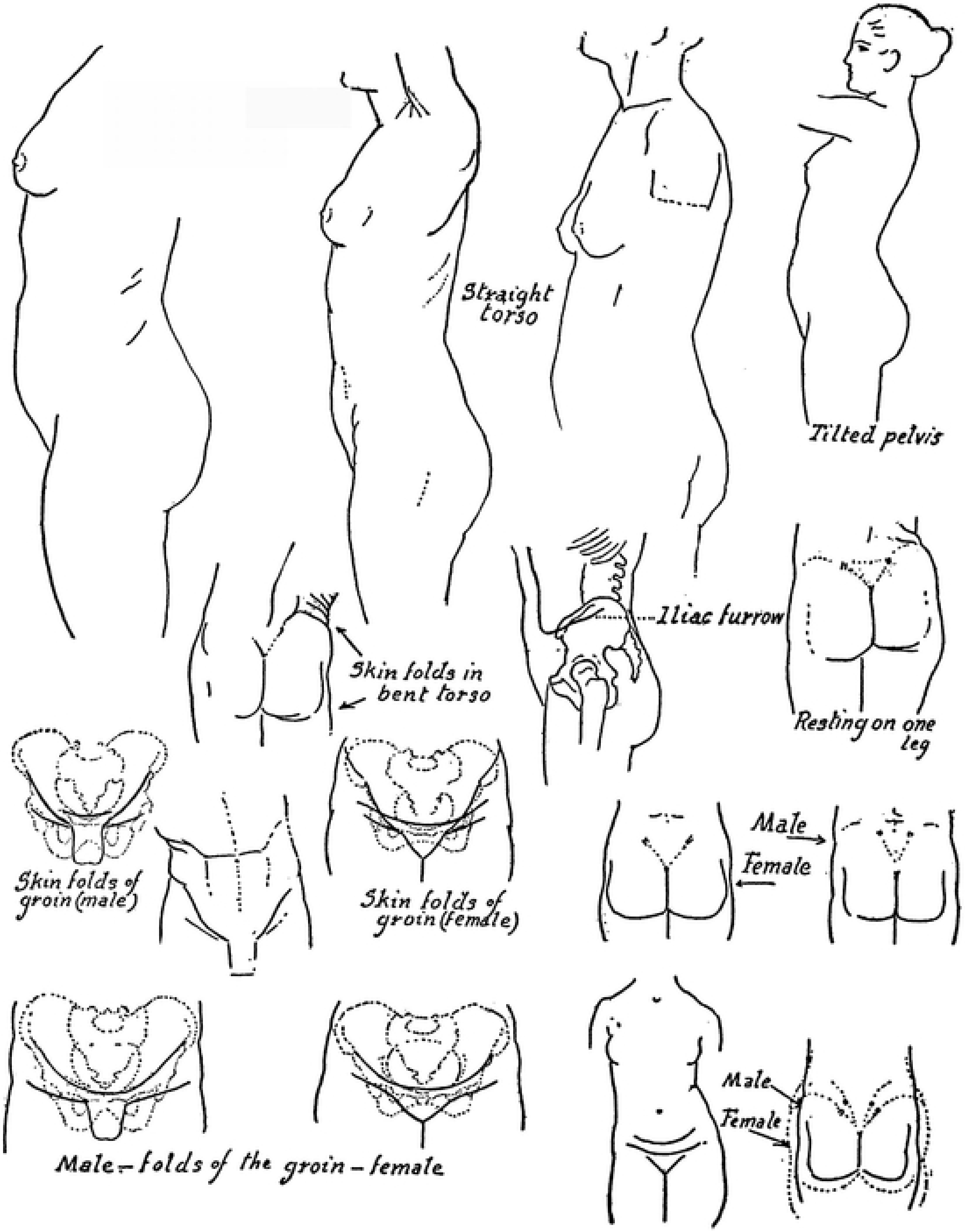
Under view

Three quarter from below

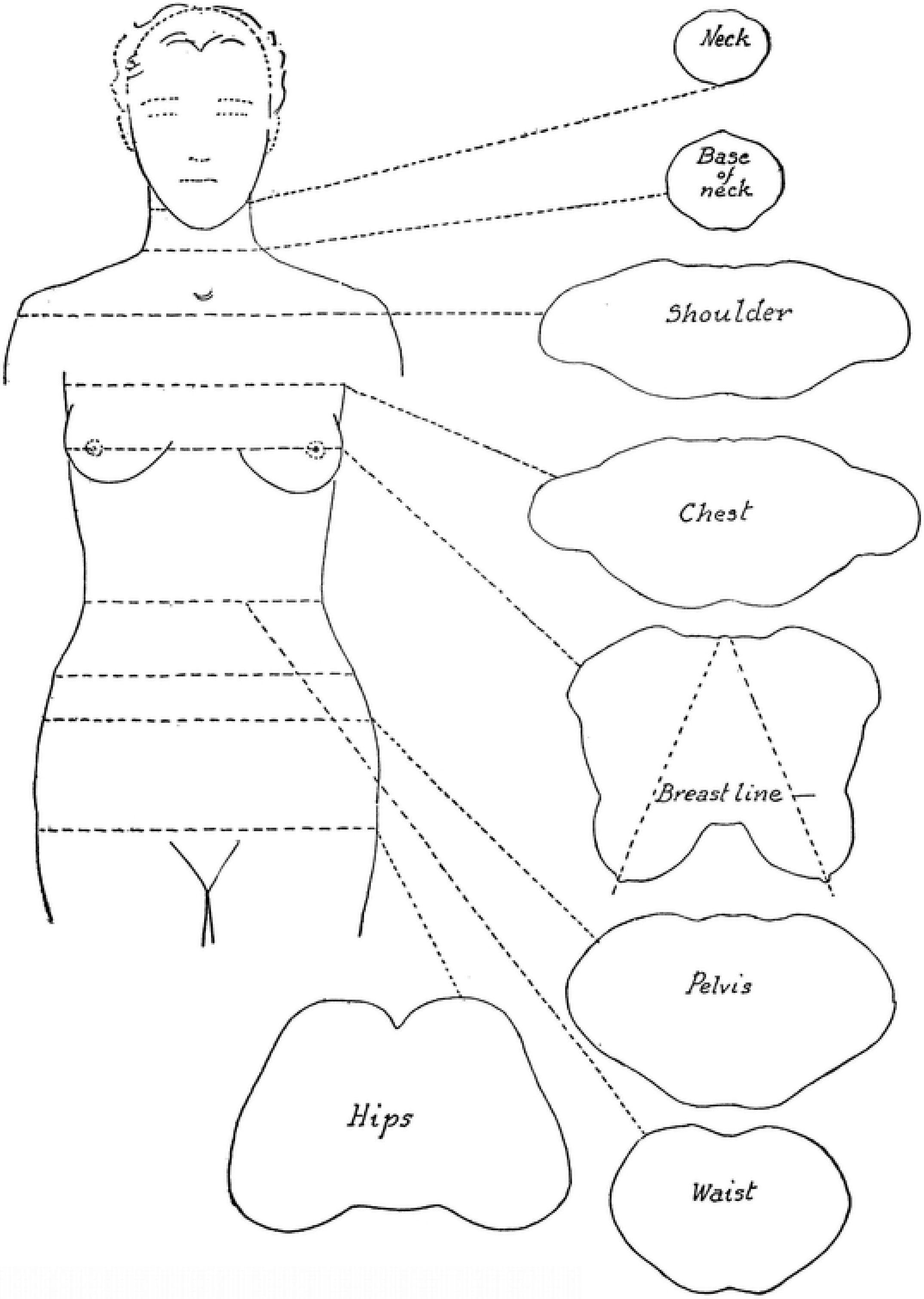
Side

Three quarter back

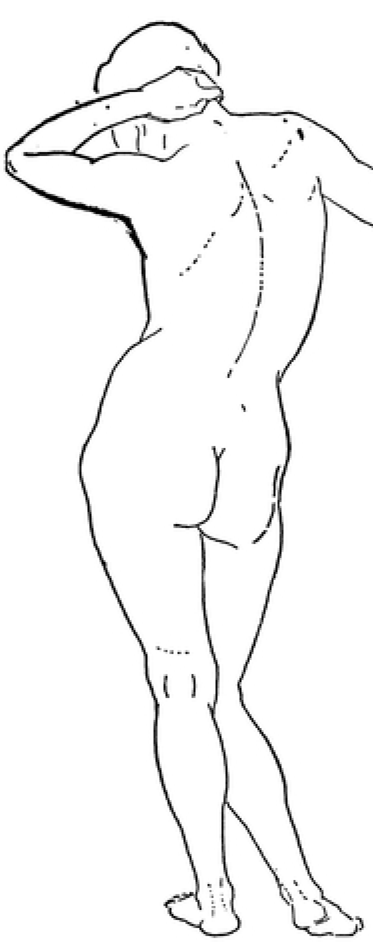

Top view of pelvic bone
Various views of pelvic bone
Acetabulum hollow for head of thigh bone
Victor Perard

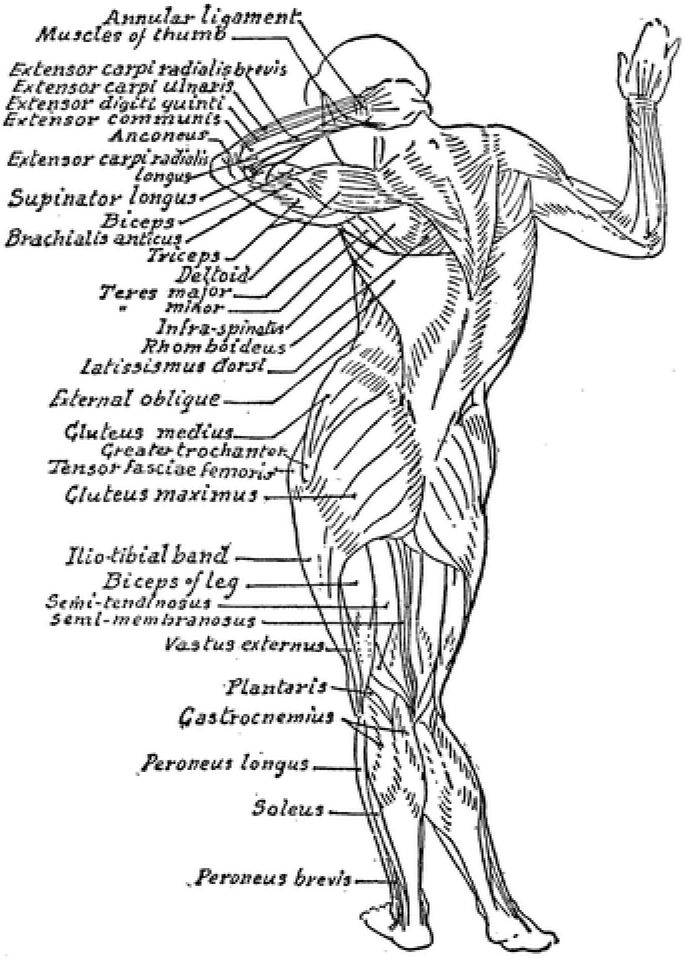

Straight torso
Tilted pelvis
Skin folds in bent torso
Iliac furrow
Resting on one leg
Skin folds of groin (male)
Skin folds of groin (female)
Male
Female
Male - folds of the groin - female
Male
Female

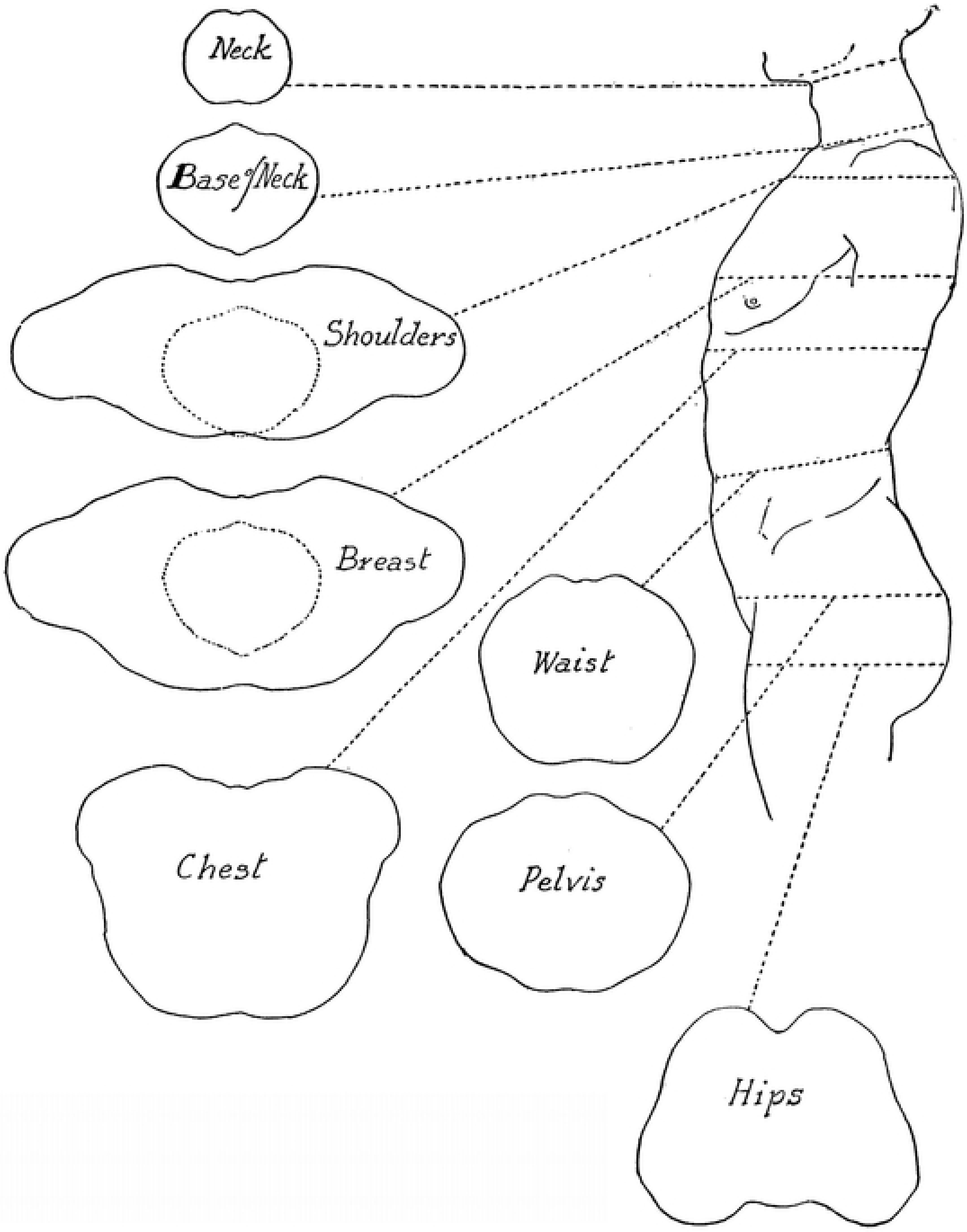
Types of female torso,


Neck
Base of neck
Shoulder
Chest
Breast line
Pelvis
Hips
Waist

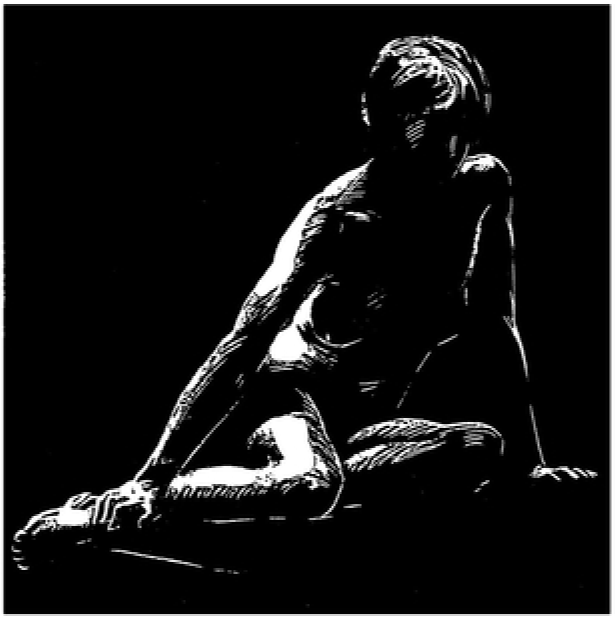
Sectional diagrams of female torso,




Annular ligament
Muscles of thumb
Extensor carpi radialis brevis
Extensor carpi ulnaris
Extensor digiti quinti
Extensor communis
Anconeus
Extensor carpi radialis longus
Supinator longus
Biceps
Brachialis anticus
Triceps
Deltoid
Teres major
" minor
Infra-spinatus
Rhomboideus
Latissismus dorsi
External oblique
Gluteus medius
Greater trochanter
Tensor fasciae femoris
Gluteus maximus
Ilio-tibial band
Biceps of leg
Semi-tendinosus
Semi-membranosus
Vastus externus
Plantaris
Gastrocnemius
Peroneus longus
Soleus
Peroneus brevis

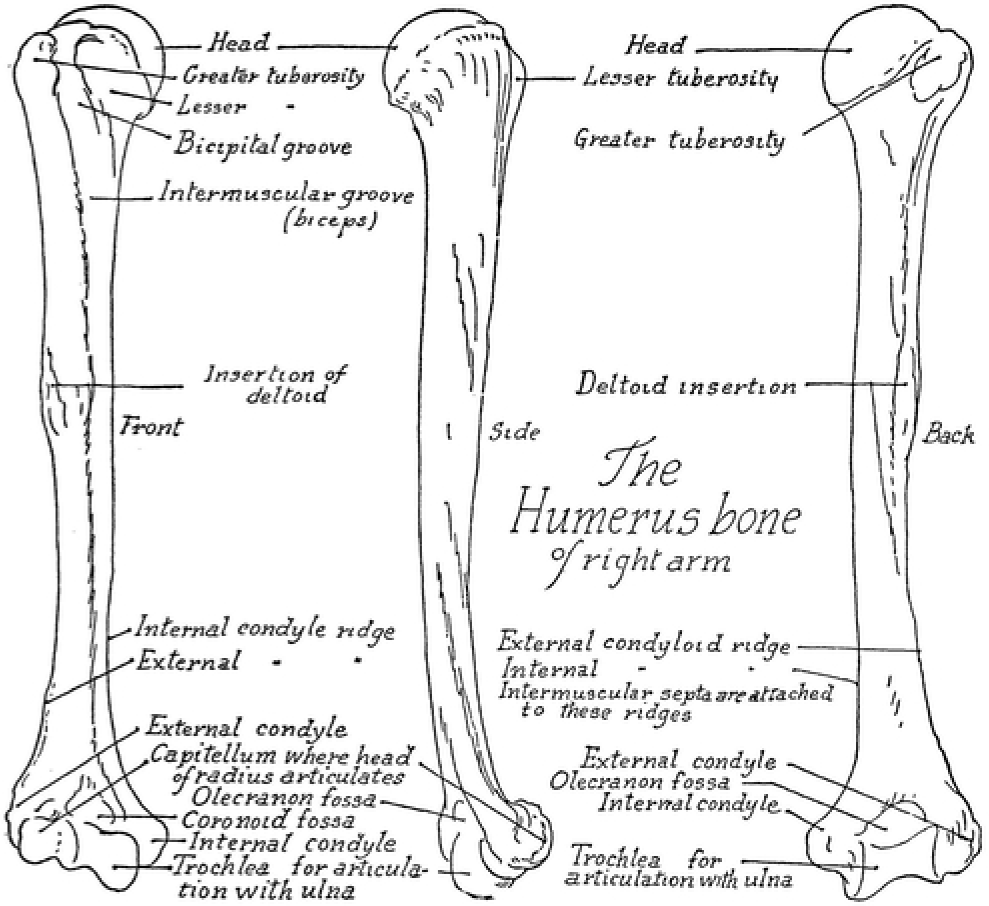

Neck
Base of Neck
Shoulders
Breast
Waist
Chest
Pelvis
Hips

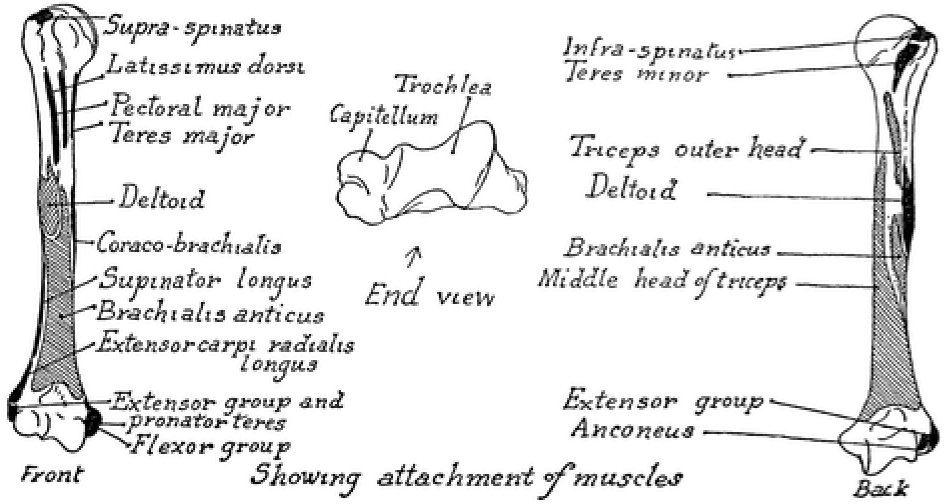
Sectional diagrams of male torso



PART FIVE

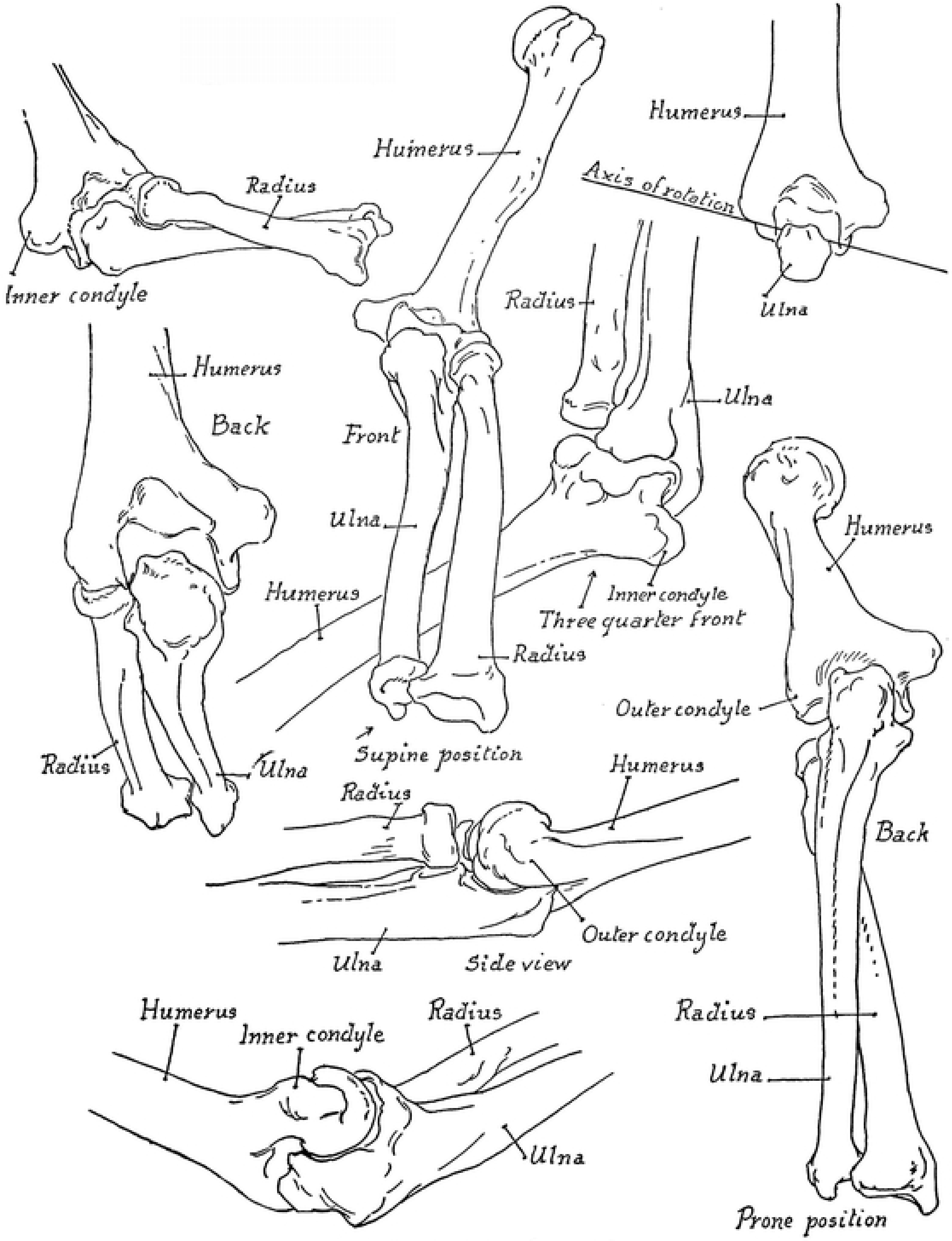
THE ARM


Head
Greater tuberosity
Lesser "
Bicipital groove
Intermuscular groove (biceps)
Insertion of deltoid
Front
Internal condyle ridge
External " "
External condyle
Capitellum where head of radius articulates
Olecranon fossa
Coronoid fossa
Internal condyle
Trochlea for articulation with ulna
Side
Head
Lesser tuberosity
Greater tuberosity
Deltoid insertion
Back
The Humerus bone of right arm
External condyloid ridge
Internal " "
Intermuscular septa are attached to these ridges
External condyle
Olecranon fossa
Internal condyle
Trochlea for articulation with ulna


Supra-spinatus
Latissimus dorsi
Pectoral major
Teres major
Deltoid
Coraco-brachialis
Supinator longus
Brachialis anticus
Extensor carpi radialis longus
Extensor group and pronator teres
Flexor group
Front
Trochlea
Capitellum
End view
Infra-spinatus
Teres minor
Triceps outer head
Deltoid
Brachialis anticus
Middle head of triceps
Extensor group
Anconeus
Back

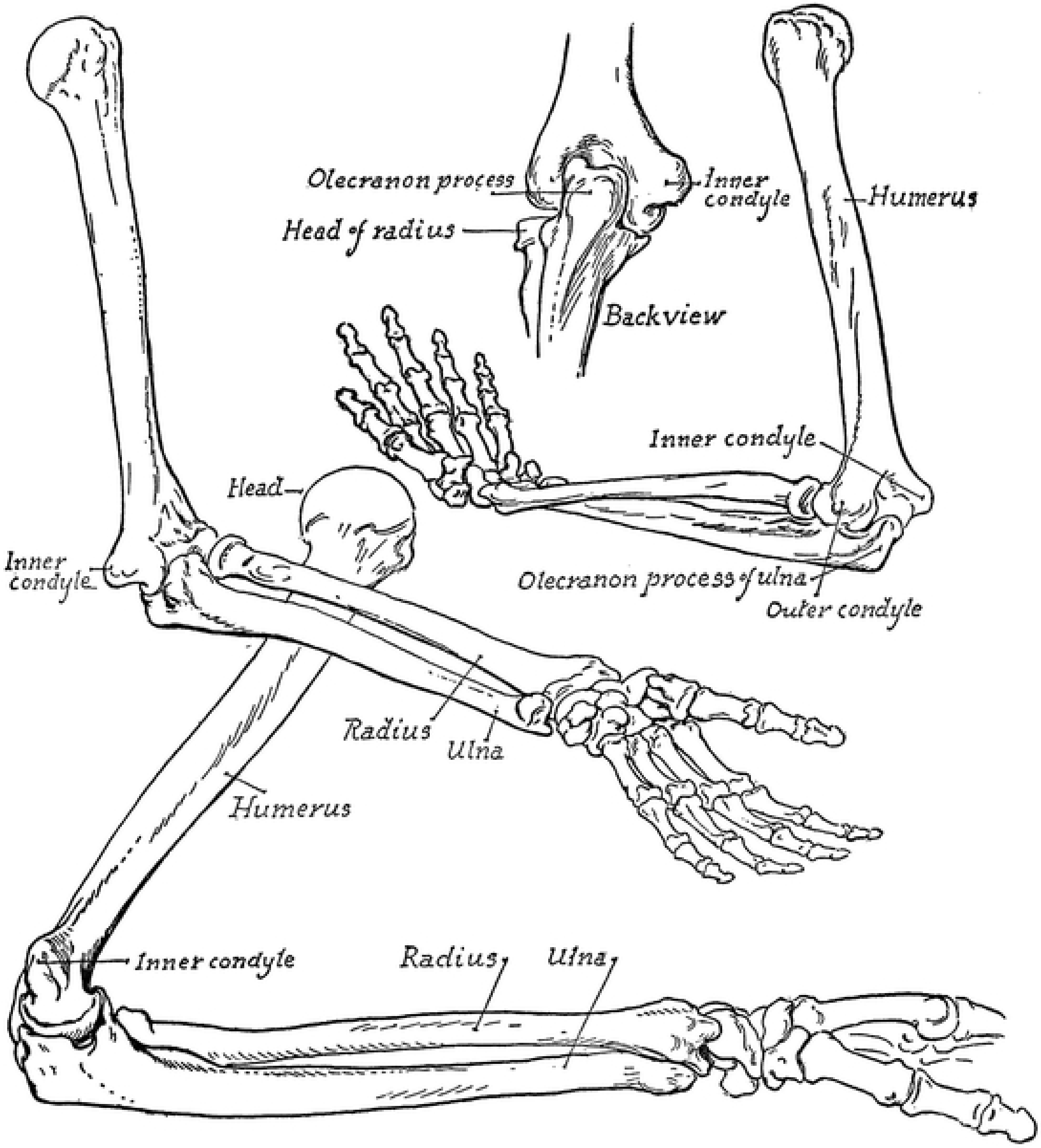
Showing attachment of muscles

The Humerus bone of right arm

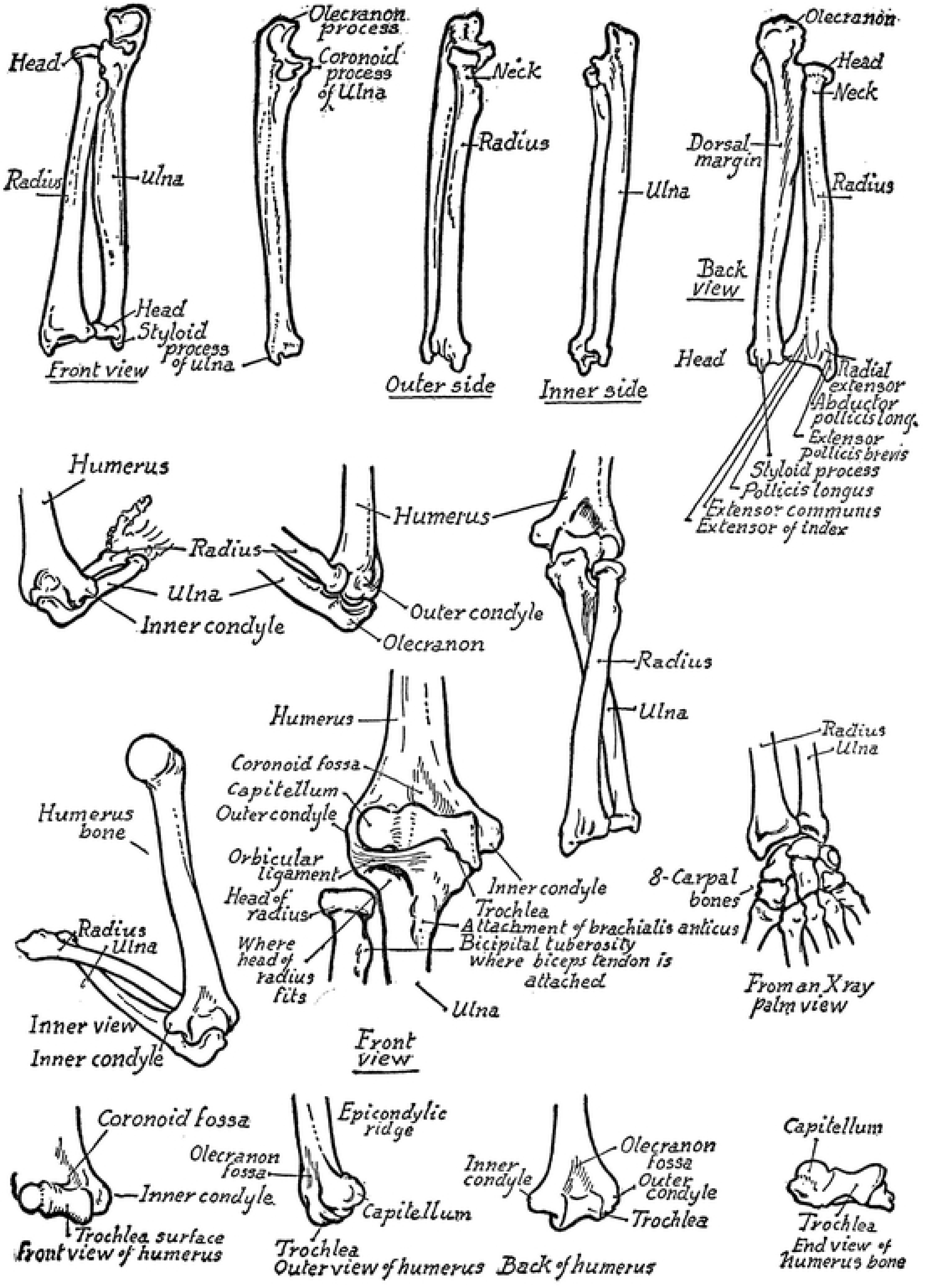

Radius
Inner condyle
Humerus
Axis of rotation
Humerus
Radius
Ulna
Humerus
Back
Front
Ulna
Ulna
Humerus
Inner condyle
Three quarter front
Humerus
Radius
Outer condyle
Radius
Ulna
Supine position
Humerus
Radius
Back
Outer condyle
Ulna
Side view
Humerus
Inner condyle
Radius
Radius
Ulna
Ulna
Prone position

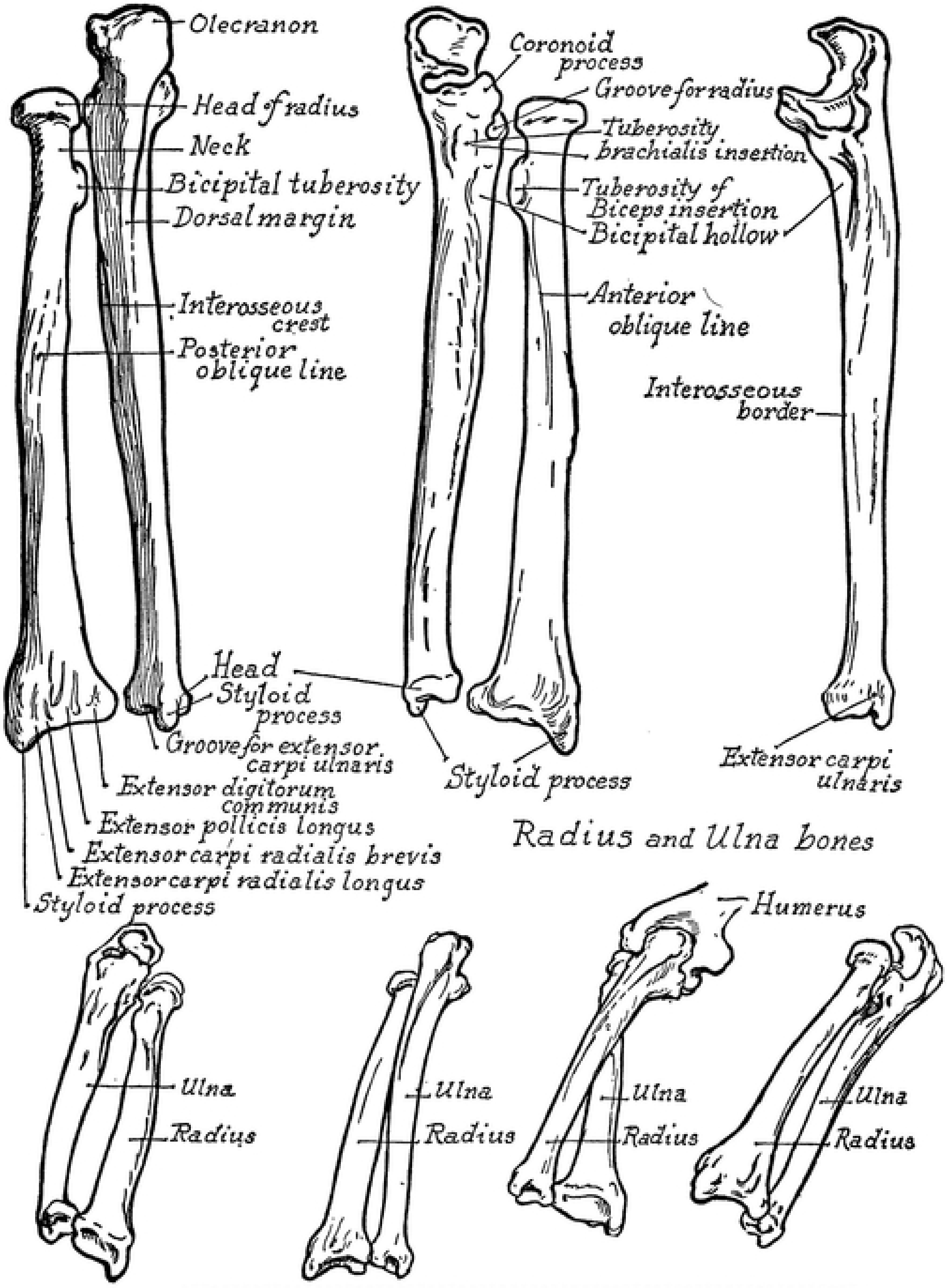
Various positions of arm bones

Left Arum

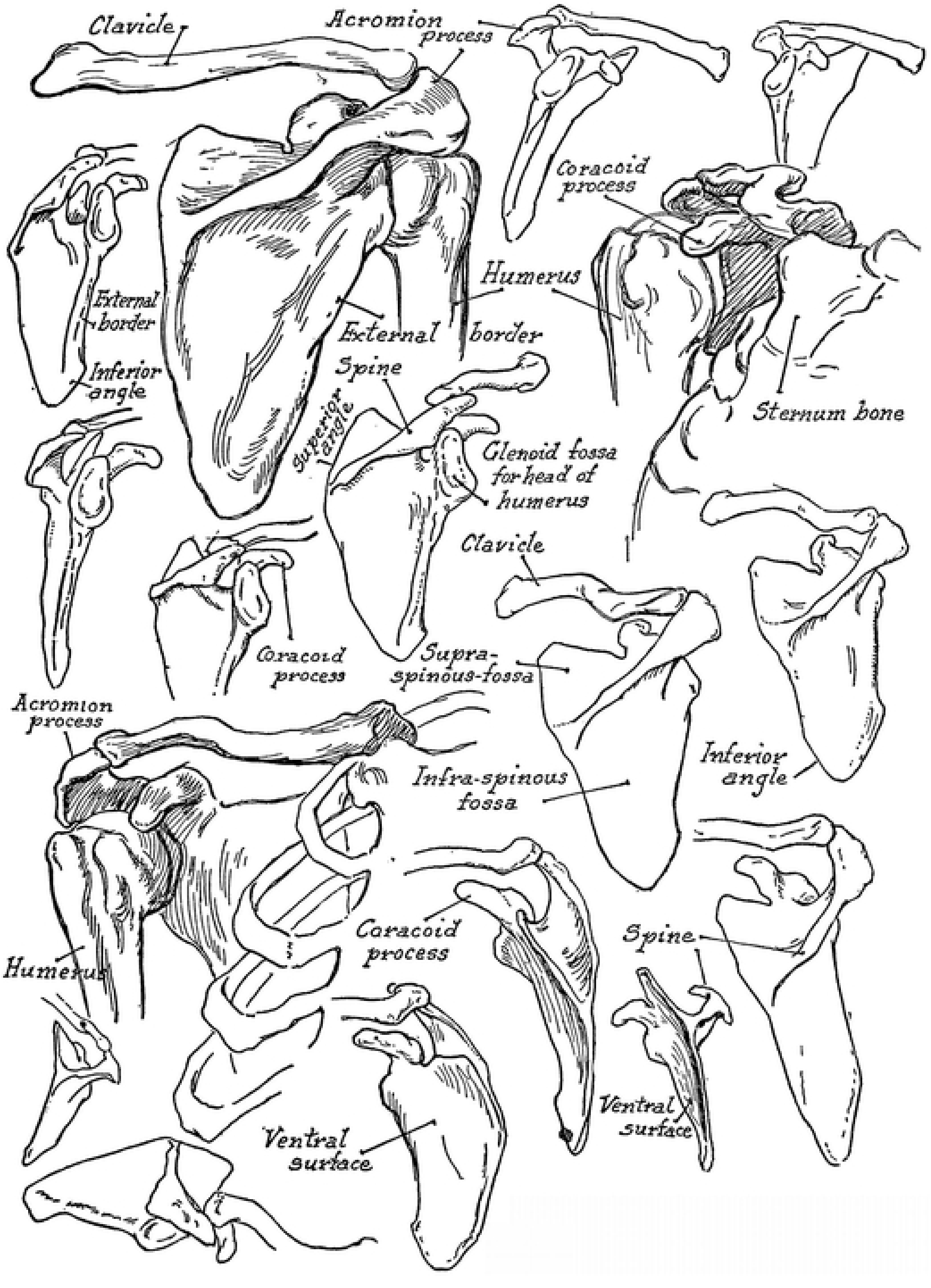

Olecranon process
Head of radius
Inner condyle
Humerus
Backview
Inner condyle
Head
Inner condyle
Olecranon process of ulna
Outer condyle
Radius
Ulna
Humerus
Inner condyle
Radius
Ulna

Bones of Arm and Hand

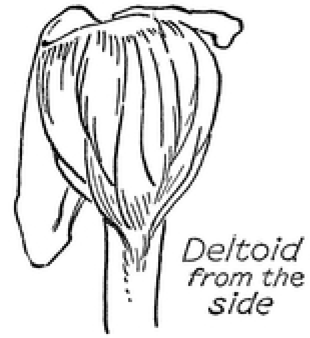

Head
Radius
Ulna
Head
Styloid process of ulna
Front view
Olecranon process
Coronoid process of Ulna
Neck
Radius
Outer side
Ulna
Inner side
Olecranon
Head
Neck
Dorsal margin
Radius
Back view
Head
Radial extensor
Abductor pollicis long.
Extensor pollicis brevis
Styloid process
Pollicis longus
Extensor communis
Extensor of index
Humerus
Radius
Ulna
Inner condyle
Humerus
Outer condyle
Olecranon
Radius
Ulna
Humerus
Coronoid fossa
Capitellum
Outer condyle
Orbicular ligament
Head of radius
Where head of radius fits
Inner condyle
Trochlea
Attachment of brachialis anticus
Bicipital tuberosity where biceps tendon is attached
Ulna
Front view
Humerus bone
Radius
Ulna
Inner view
Inner condyle
Radius
Ulna
8-Carpal bones
From an X ray palm view
Coronoid fossa
Inner condyle
Trochlea surface
Front view of humerus
Epicondylic ridge
Olecranon fossa
Capitellum
Trochlea
Outer view of humerus
Inner condyle
Olecranon fossa
Outer condyle
Trochlea
Back of humerus
Capitellum
Trochlea
End view of humerus bone

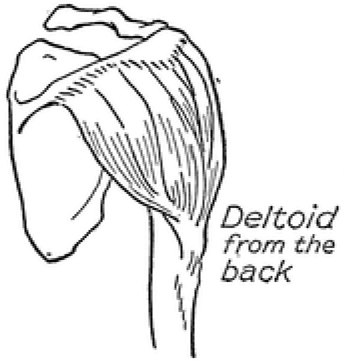

Olecranon
Head of radius
Neck
Bicipital tuberosity
Dorsal margin
Interosseous crest
Posterior oblique line
Head
Styloid process
Groove for extensor carpi ulnaris
Extensor digitorum communis
Extensor pollicis longus
Extensor carpi radialis brevis
Extensor carpi radialis longus
Styloid process
Coronoid process
Groove for radius
Tuberosity brachialis insertion
Tuberosity of Biceps insertion
Bicipital hollow
Anterior oblique line
Interosseous border
Styloid process
Extensor carpi ulnaris
Radius and Ulna bones
Humerus
Ulna
Radius
Ulna
Radius
Ulna
Radius
Ulna
Radius

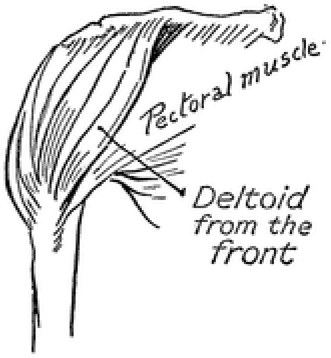
Relations and foreshortenings of radius and ulna.

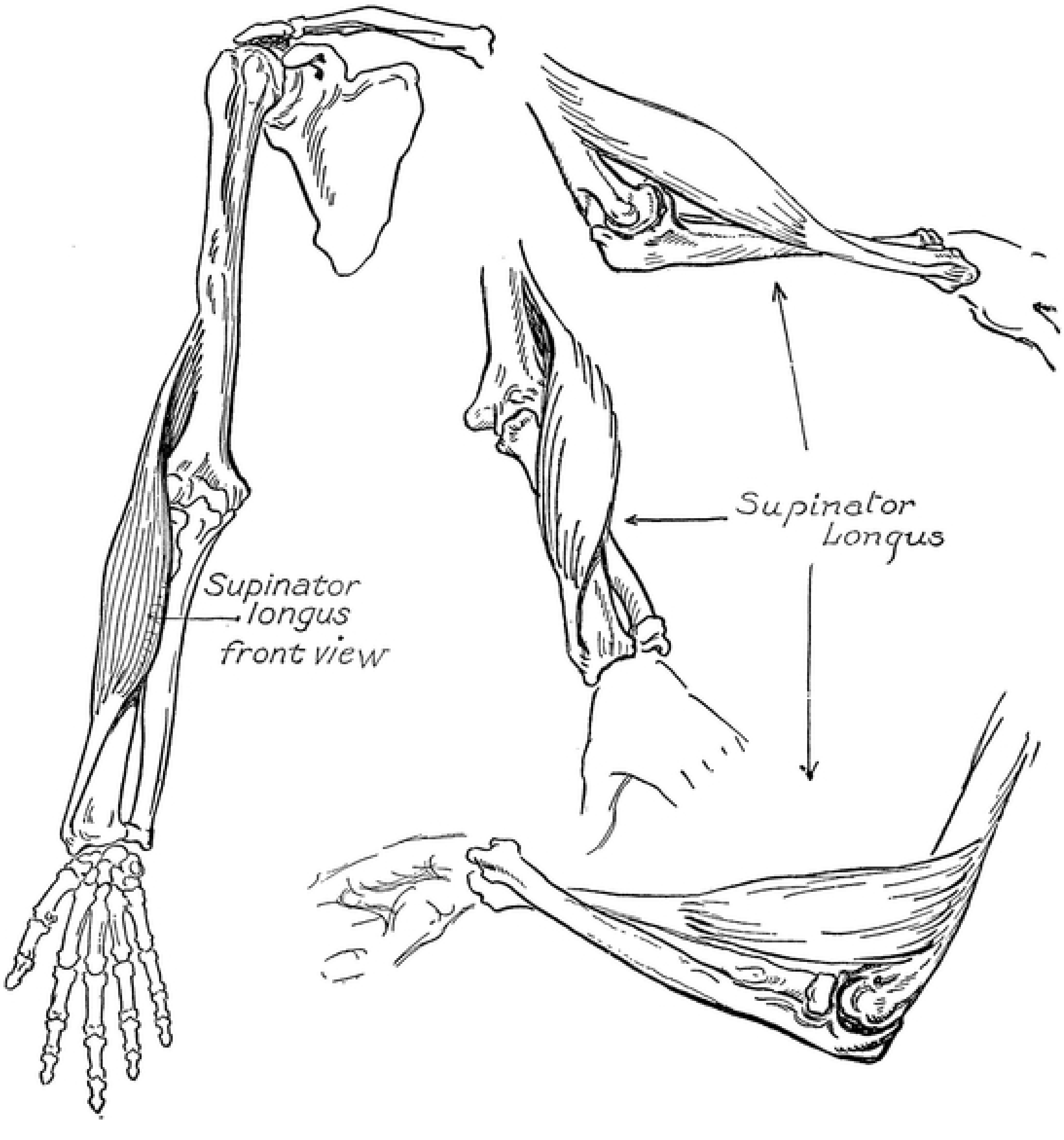

Clavicle
Acromion process
External border
Inferior angle
Humerus
External border
Coracoid process
Sternum bone
Spine
Superior angle
Glenoid fossa for head of humerus
Clavicle
Coracoid process
Supra-spinous-fossa
Acromion process
Infra-spinous fossa
Inferior angle
Humerus
Coracoid process
Spine
Ventral surface
Ventral surface

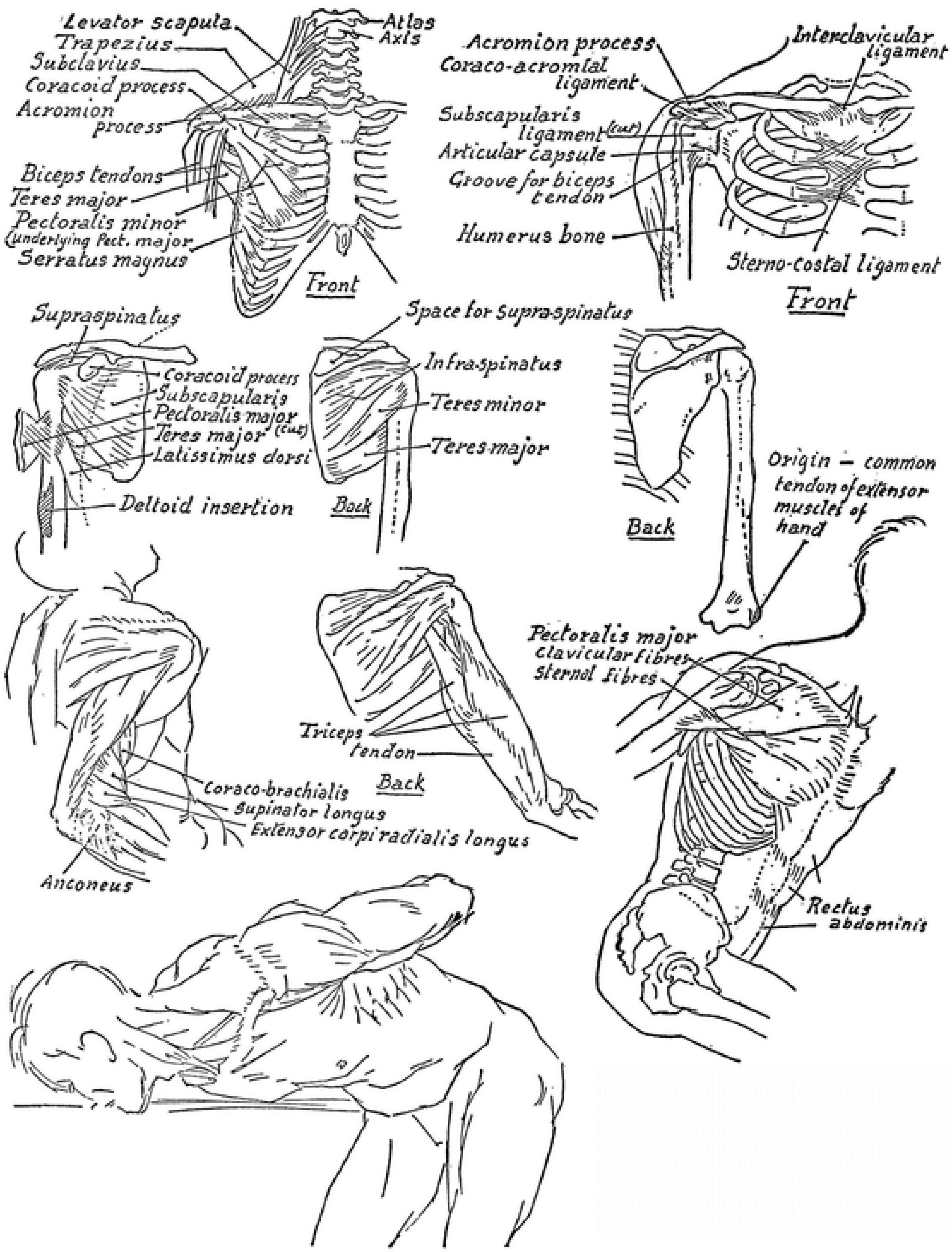
Variour Views of Clavicle and Scoputa,


Deltoid
from the
side

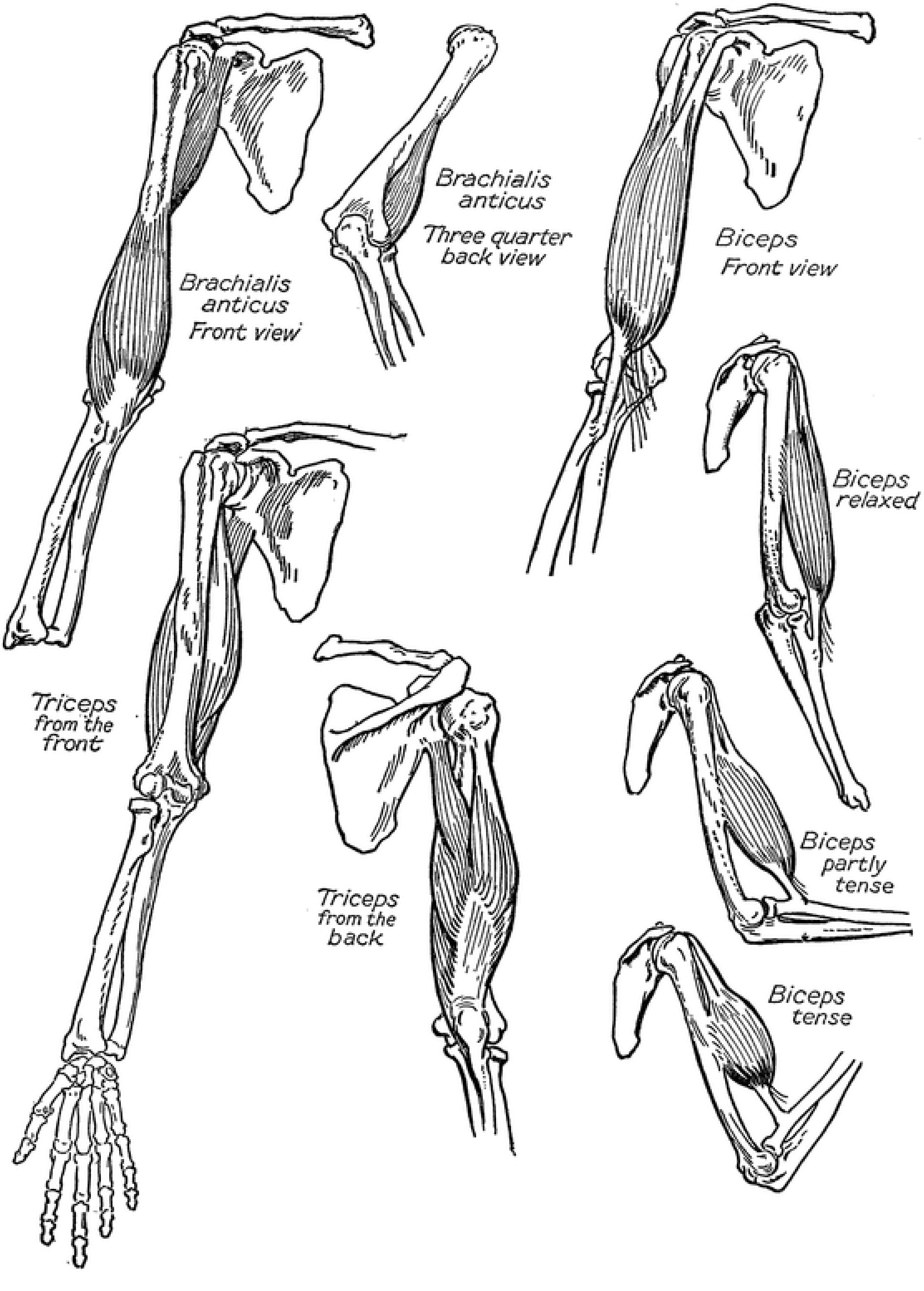

Deltoid
from the
back

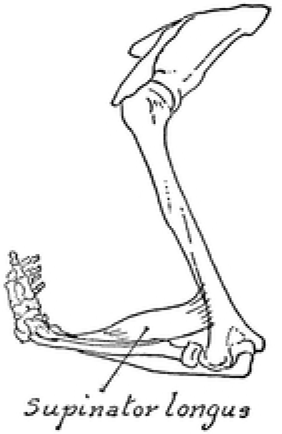

Pectoral muscle
Deltoid
from the
front

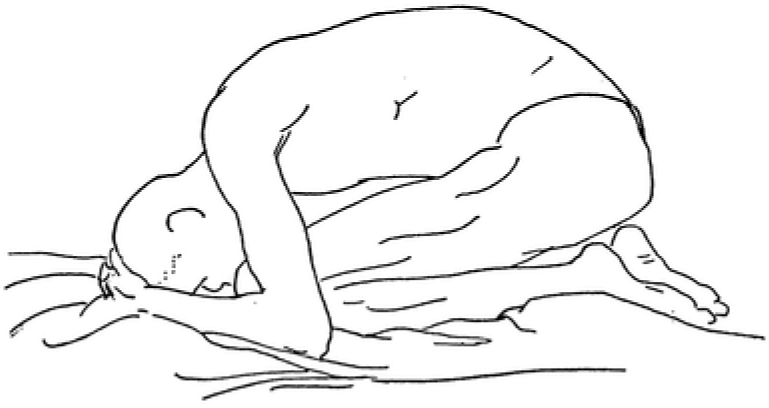

Supinator
longus
front view
Supinator
Longus

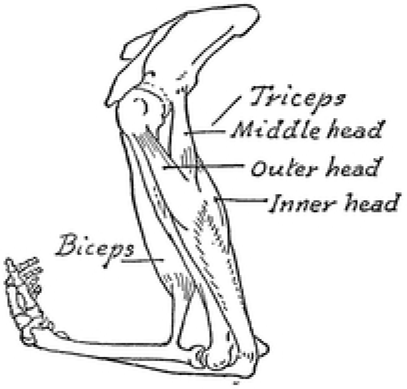

Levator scapula
Atlas
Axis
Trapezius
Subclavius
Coracoid process
Acromion process
Biceps tendons
Teres major
Pectoralis minor
(underlying Pect. major
Serratus magnus
Front
Acromion process
Interclavicular ligament
Coraco-acromial ligament
Subscapularis ligament (cut)
Articular capsule
Groove for biceps tendon
Humerus bone
Sterno-costal ligament
Front
Supraspinatus
Coracoid process
Subscapularis
Pectoralis major (cut)
Teres major
Latissimus dorsi
Deltoid insertion
Space for supra-spinatus
Infraspinatus
Teres minor
Teres major
Back
Back
Origin — common tendon of extensor muscles of hand
Pectoralis major
clavicular fibres
sternal fibres
Triceps
tendon
Back
Coraco-brachialis
Supinator longus
Extensor carpi radialis longus
Anconeus
Rectus abdominis

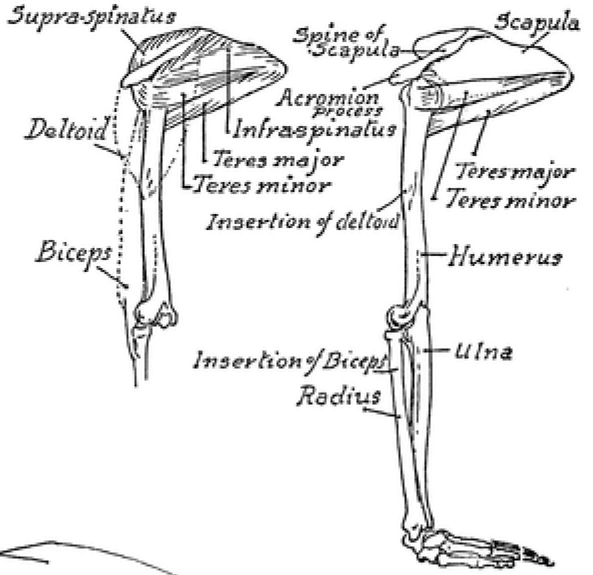
Studies of shoulder girdle, grouped for comparison

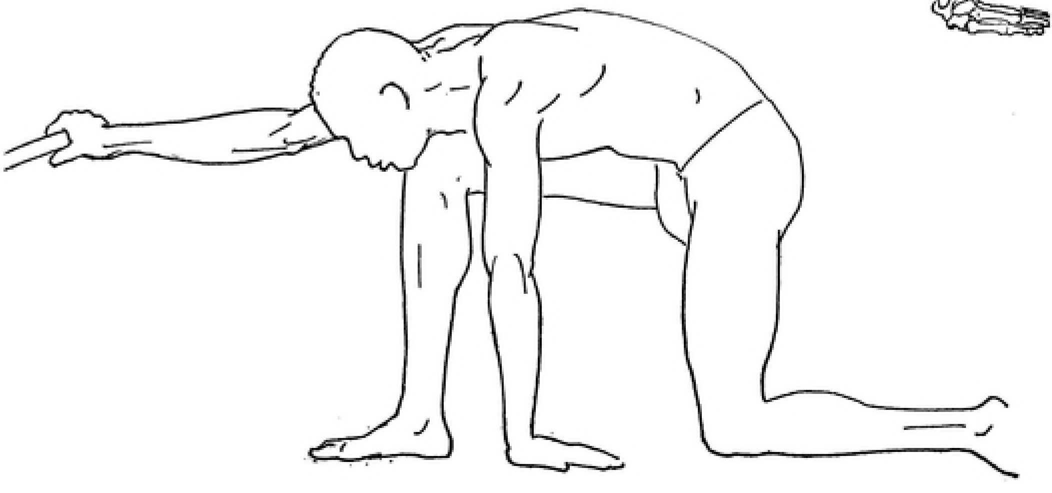

Brachialis anticus Front view
Brachialis anticus Three quarter back view
Biceps Front view
Biceps relaxed
Triceps from the front
Triceps from the back
Biceps partly tense
Biceps tense

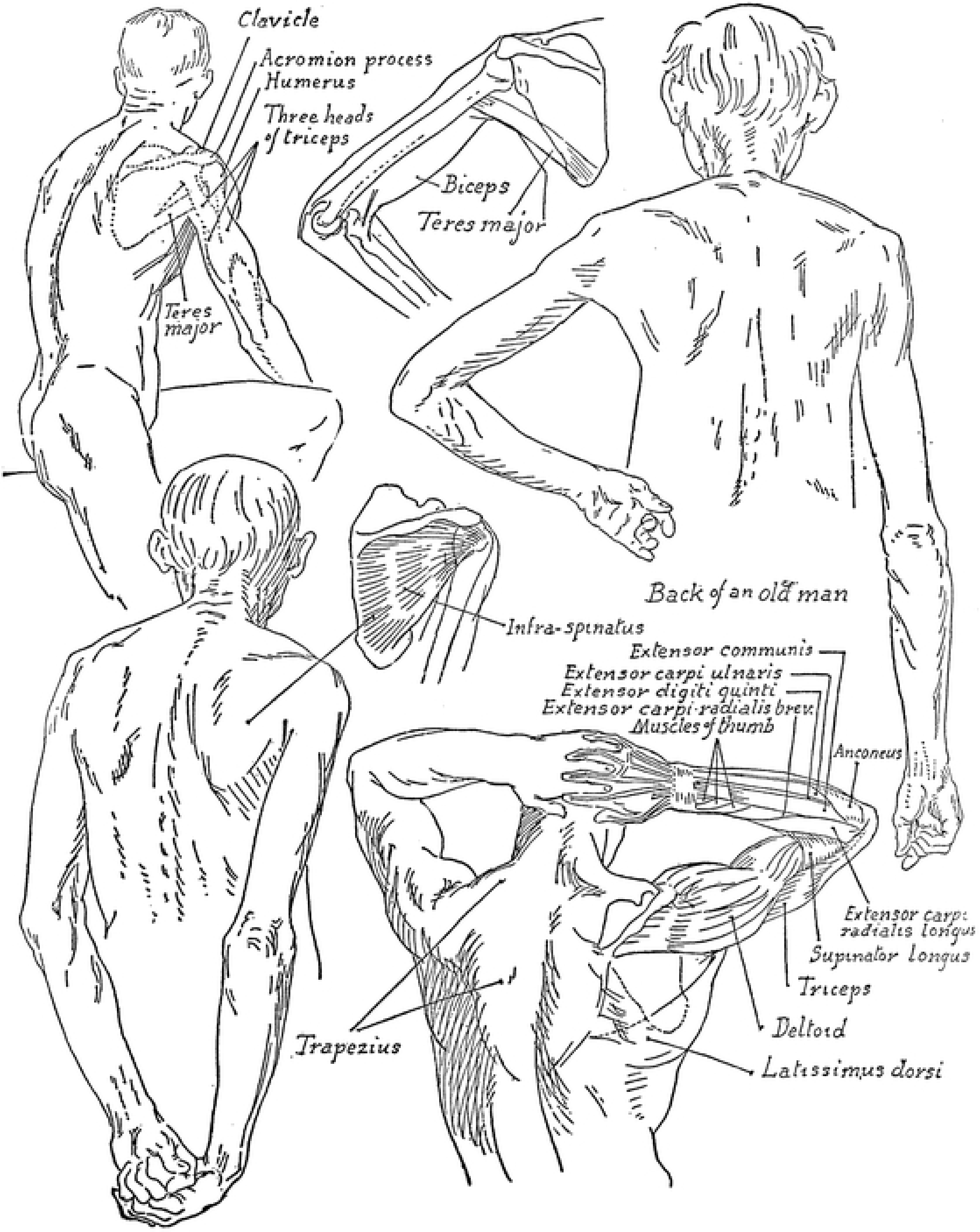

Supinator longus



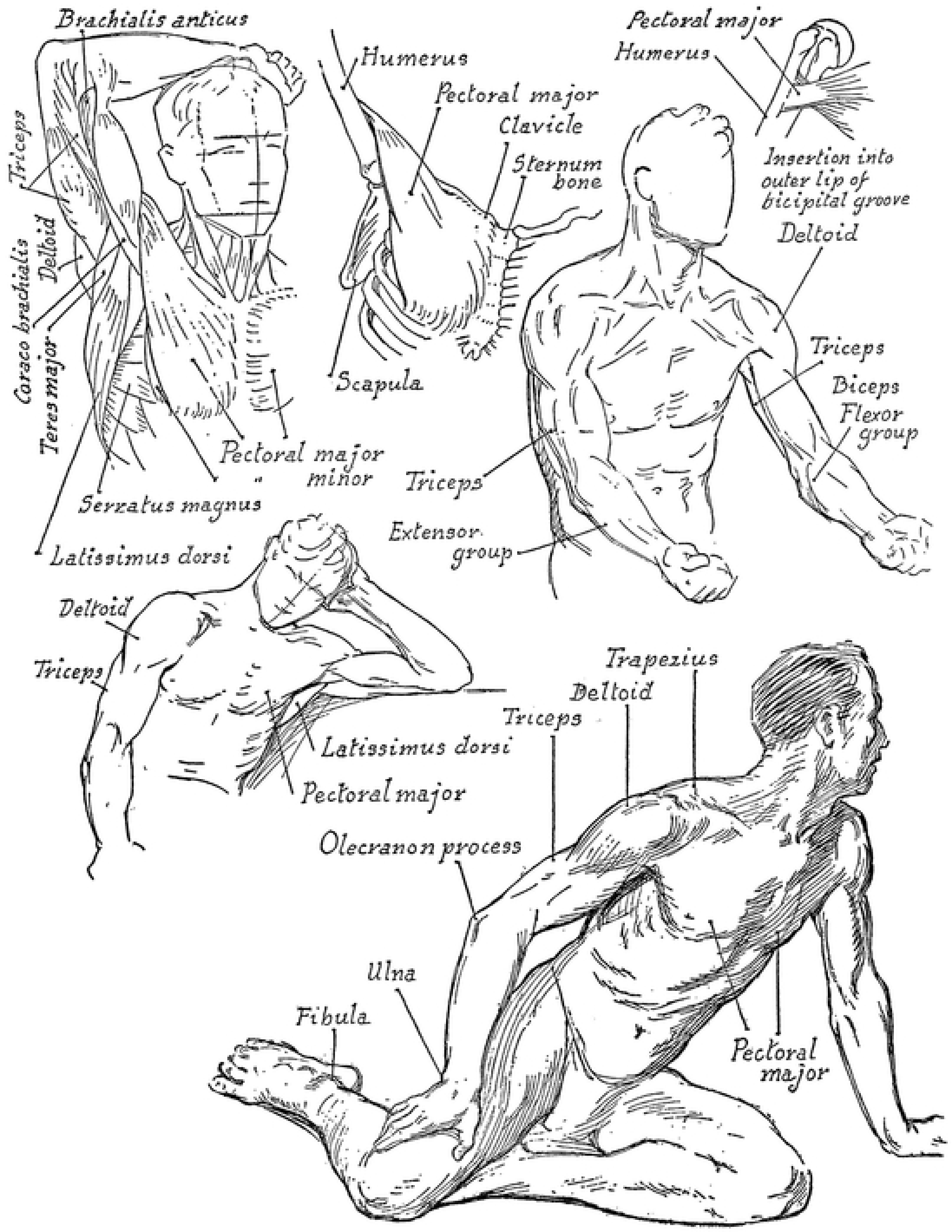

Triceps
Middle head
Outer head
Inner head
Biceps

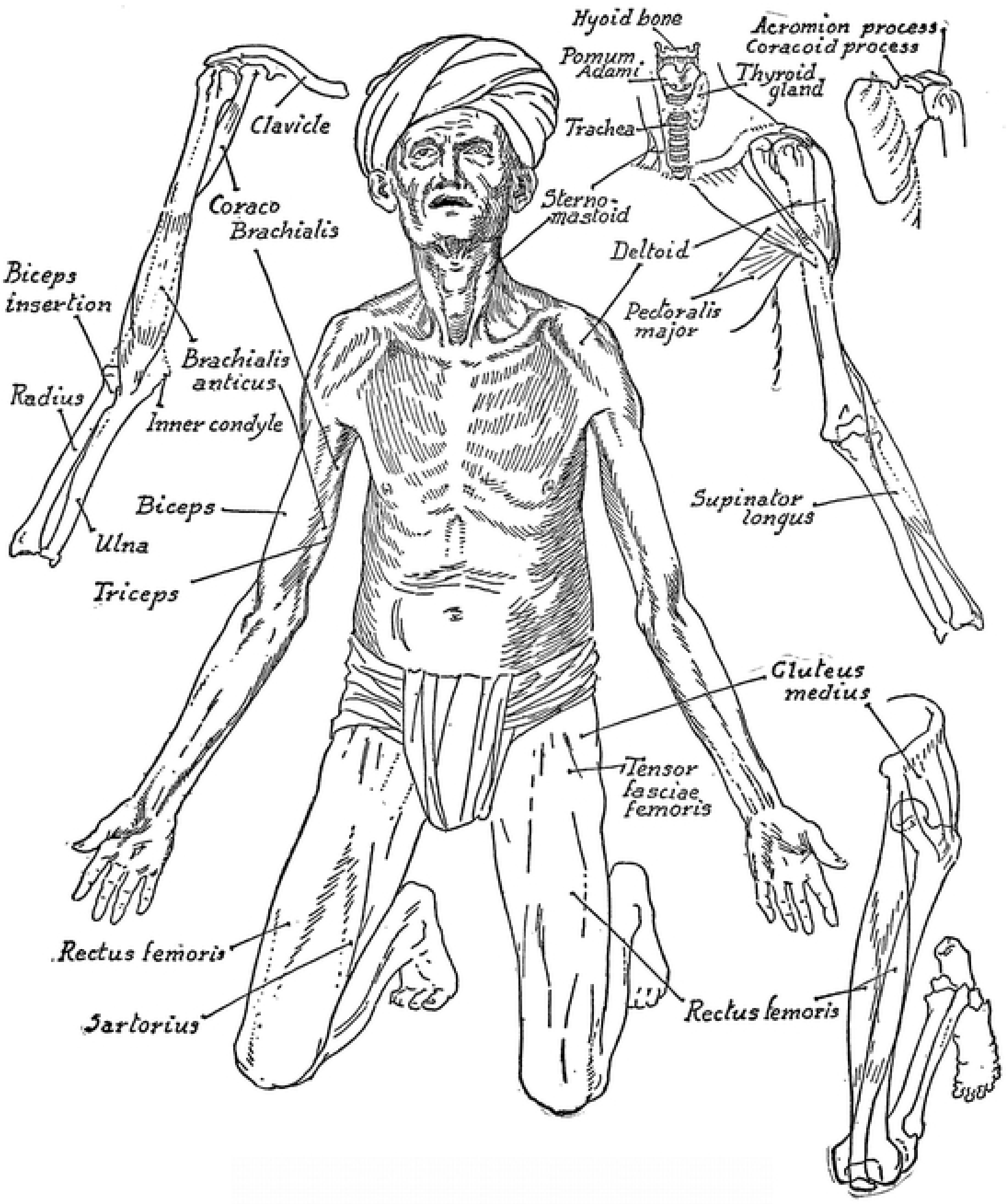

Supra-spinatus
Deltoid
Infraspinatus
Teres major
Teres minor
Biceps
Spine of Scapula
Scapula
Acromion process
Teres major
Teres minor
Insertion of deltoid
Humerus
Ulna
Insertion of Biceps
Radius



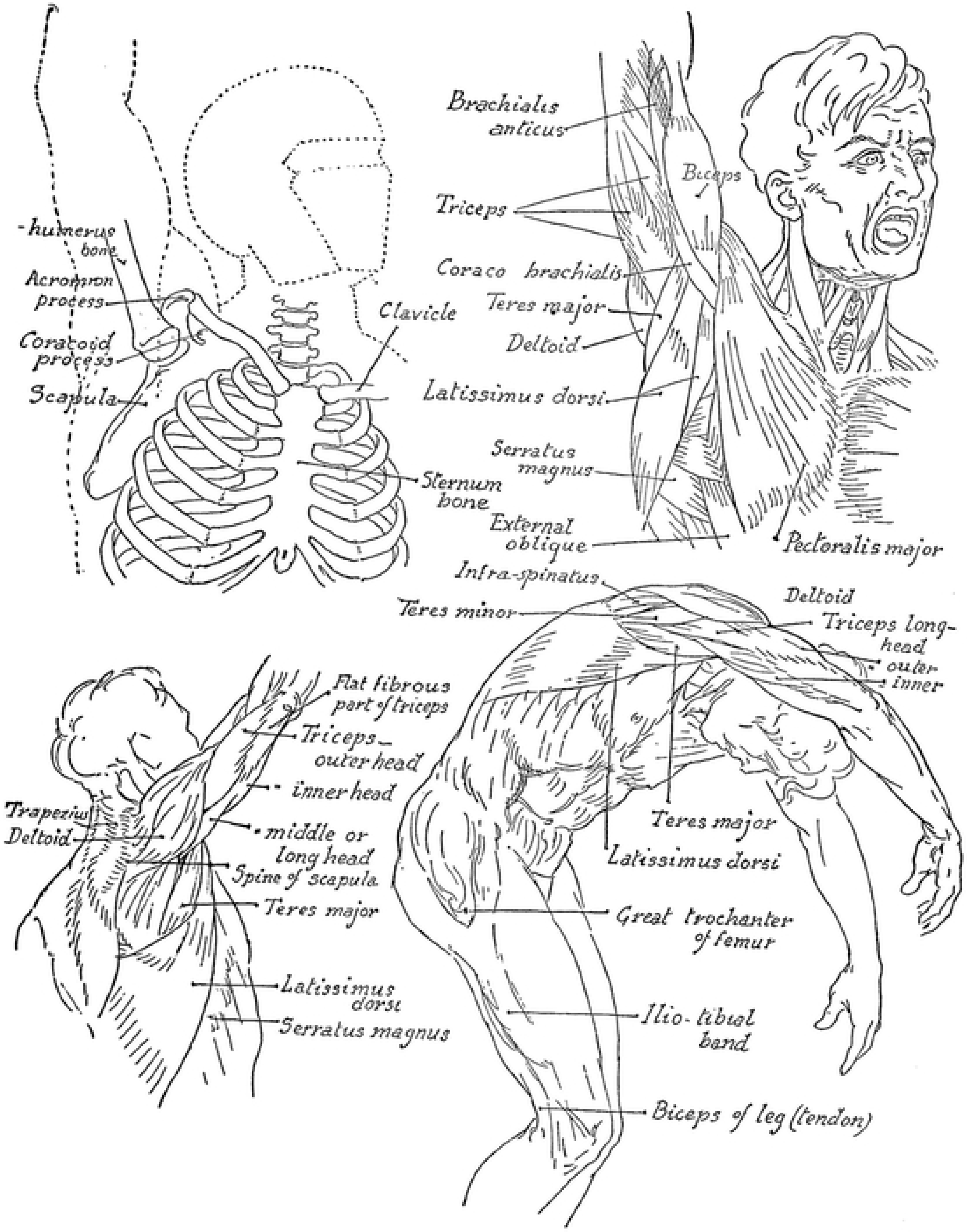

Clavicle
Acromion process
Humerus
Three heads of triceps
Biceps
Teres major
Teres major
Back of an old man
Infra-spinatus
Extensor communis
Extensor carpi ulnaris
Extensor digiti quinti
Extensor carpi radialis brev.
Muscles of thumb
Anconeus
Extensor carpi radialis longus
Supinator longus
Triceps
Deltoid
Latissimus dorsi
Trapezius

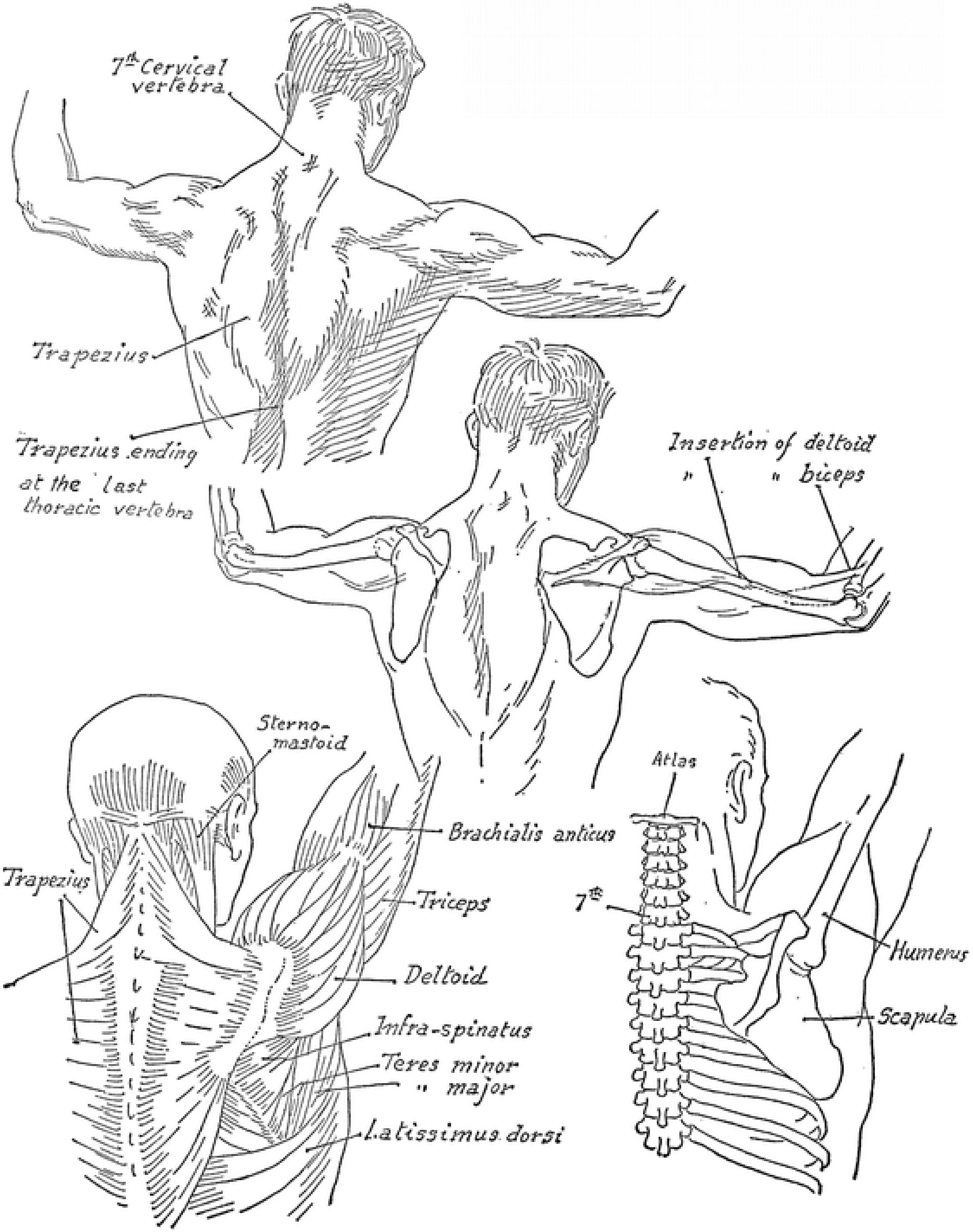
Back of an old man


Brachialis anticus
Triceps
Deltoid
Coraco brachialis
Teres major
Pectoral major
minor
Serratus magnus
Latissimus dorsi
Humerus
Pectoral major
Clavicle
Sternum
bone
Scapula
Pectoral major
Humerus
Insertion into
outer lip of
bicipital groove
Deltoid
Triceps
Biceps
Flexor
group
Triceps
Extensor
group
Deltoid
Triceps
Latissimus dorsi
Pectoral major
Trapezius
Deltoid
Triceps
Olecranon process
Ulna
Fibula
Pectoral
major

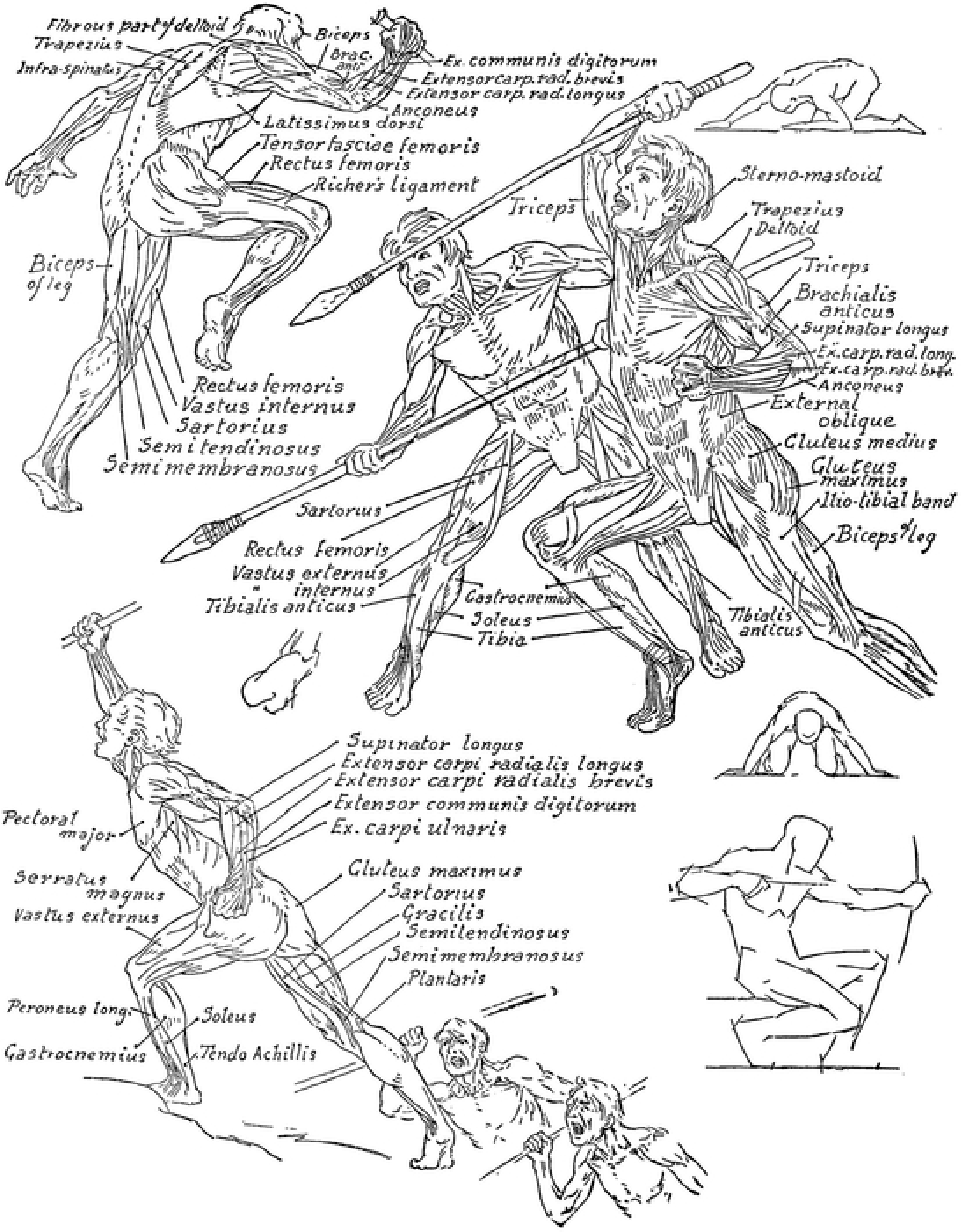

Hyoid bone
Acromion process
Coracoid process
Pomum Adami
Thyroid gland
Clavicle
Trachea
Coraco Brachialis
Sterno-mastoid
Deltoid
Biceps insertion
Pectoralis major
Brachialis anticus
Radius
Inner condyle
Biceps
Supinator longus
Ulna
Triceps
Gluteus medius
Tensor fasciae femoris
Rectus femoris
Sartorius
Rectus femoris

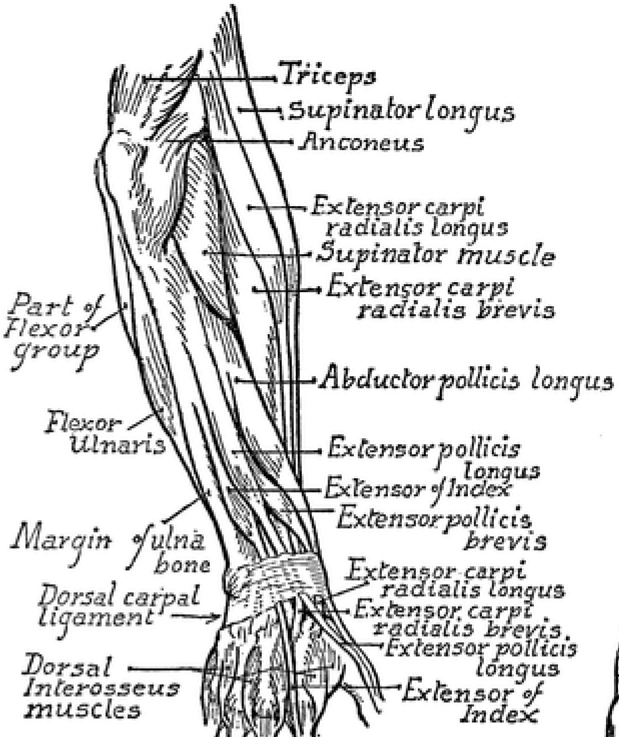
Emaciated figures


-humerus bone
Acromion process
Coracoid process
Scapula
Clavicle
Sternum bone
Brachialis anticus
Biceps
Triceps
Coraco brachialis
Teres major
Deltoid
Latissimus dorsi
Serratus magnus
External oblique
Pectoralis major
Intra-spinatus
Teres minor
Deltoid
Triceps long-head
outer
inner
Flat fibrous part of triceps
Triceps-outer head
inner head
Trapezius
Deltoid
middle or long head
Spine of scapula
Teres major
Latissimus dorsi
Serratus magnus
Teres major
Latissimus dorsi
Great trochanter of femur
Ilio-tibial band
Biceps of leg (tendon)


7th Cervical vertebra
Trapezius
Trapezius ending at the last thoracic vertebra
Insertion of deltoid
" " biceps
Sterno-mastoid
Trapezius
Brachialis anticus
Triceps
Deltoid
Infra-spinatus
Teres minor
" major
Latissimus dorsi
Atlas
7th
Humerus
Scapula

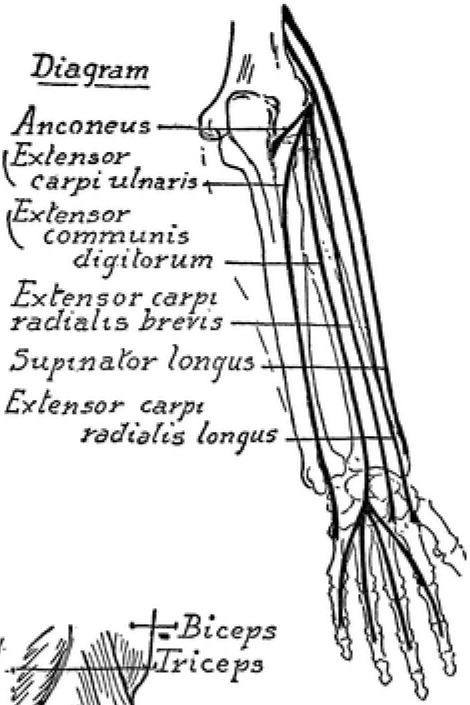
Showing change of angle of Scapula, with movement of arm

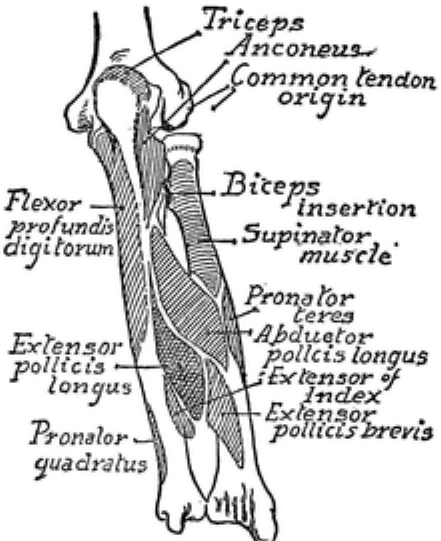

Fibrous part of deltoid
Trapezius
Infra-spinatus
Biceps
Brac. ant.
Ex. communis digitorum
Extensor carp. rad. brevis
Extensor carp. rad. longus
Anconeus
Latissimus dorsi
Tensor fasciae femoris
Rectus femoris
Richer's ligament
Biceps of leg
Rectus femoris
Vastus internus
Sartorius
Semi tendinosus
Semi membranosus
Triceps
Sterno-mastoid
Trapezius
Deltoid
Triceps
Brachialis anticus
Supinator longus
Ex. carp. rad. long.
Ex. carp. rad. brev.
Anconeus
External oblique
Gluteus medius
Gluteus maximus
Ilio-tibial band
Biceps of leg
Sartorius
Rectus femoris
Vastus externus
" internus
Tibialis anticus
Gastrocnemius
Soleus
Tibia
Tibialis anticus
Supinator longus
Extensor carpi radialis longus
Extensor carpi radialis brevis
Extensor communis digitorum
Ex. carpi ulnaris
Pectoral major
Serratus magnus
Vastus externus
Gluteus maximus
Sartorius
Gracilis
Semitendinosus
Semimembranosus
Plantaris
Peroneus long.
Soleus
Gastrocnemius
Tendo Achillis


Triceps
Supinator longus
Anconeus
Extensor carpi radialis longus
Supinator muscle
Extensor carpi radialis brevis
Part of Flexor group
Abductor pollicis longus
Flexor ulnaris
Extensor pollicis longus
Extensor of Index
Extensor pollicis brevis
Margin of ulna bone
Extensor carpi radialis longus
Dorsal carpal ligament
Extensor carpi radialis brevis
Extensor pollicis longus
Dorsal Interosseus muscles
Extensor of Index

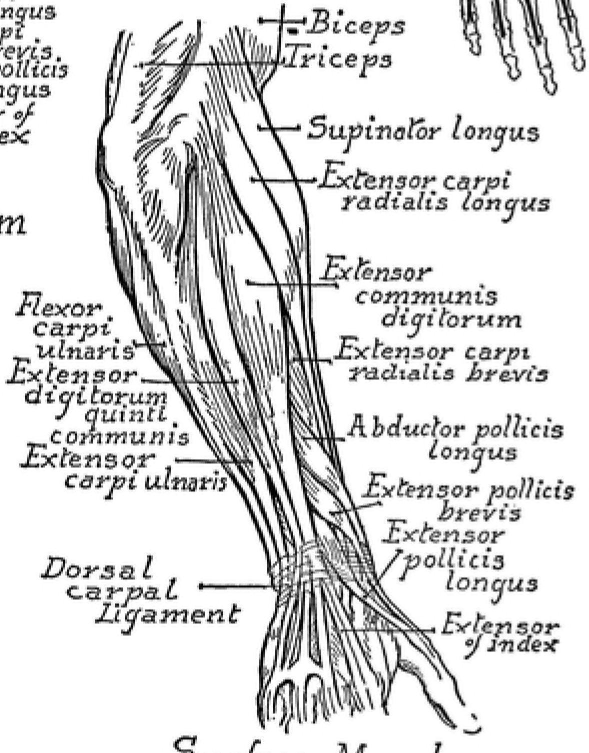
Deep Muscles
Dorsal side of Arm

Diagram

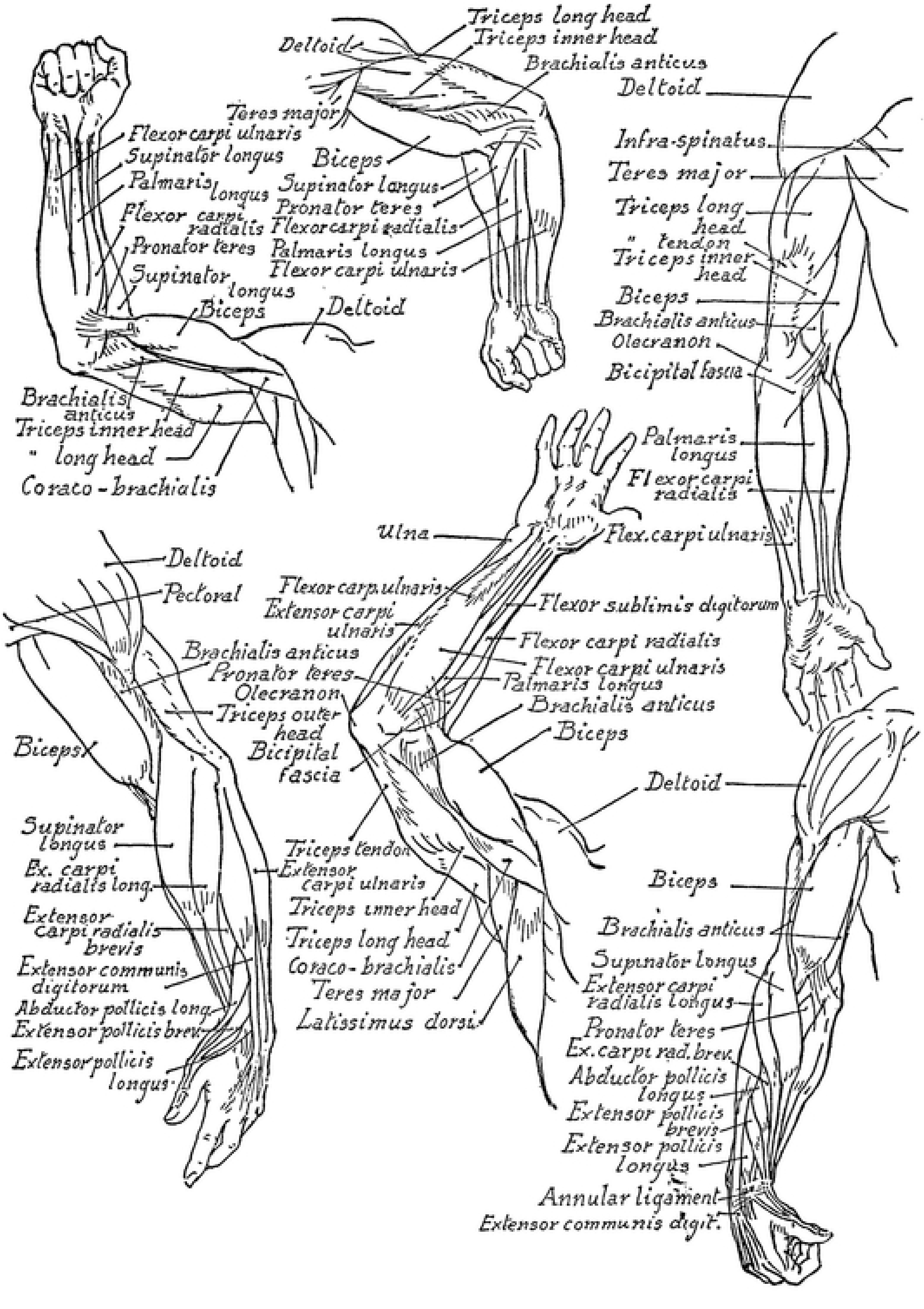

Anconeus
Extensor carpi ulnaris
Extensor communis digitorum
Extensor carpi radialis brevis
Supinator longus
Extensor carpi radialis longus

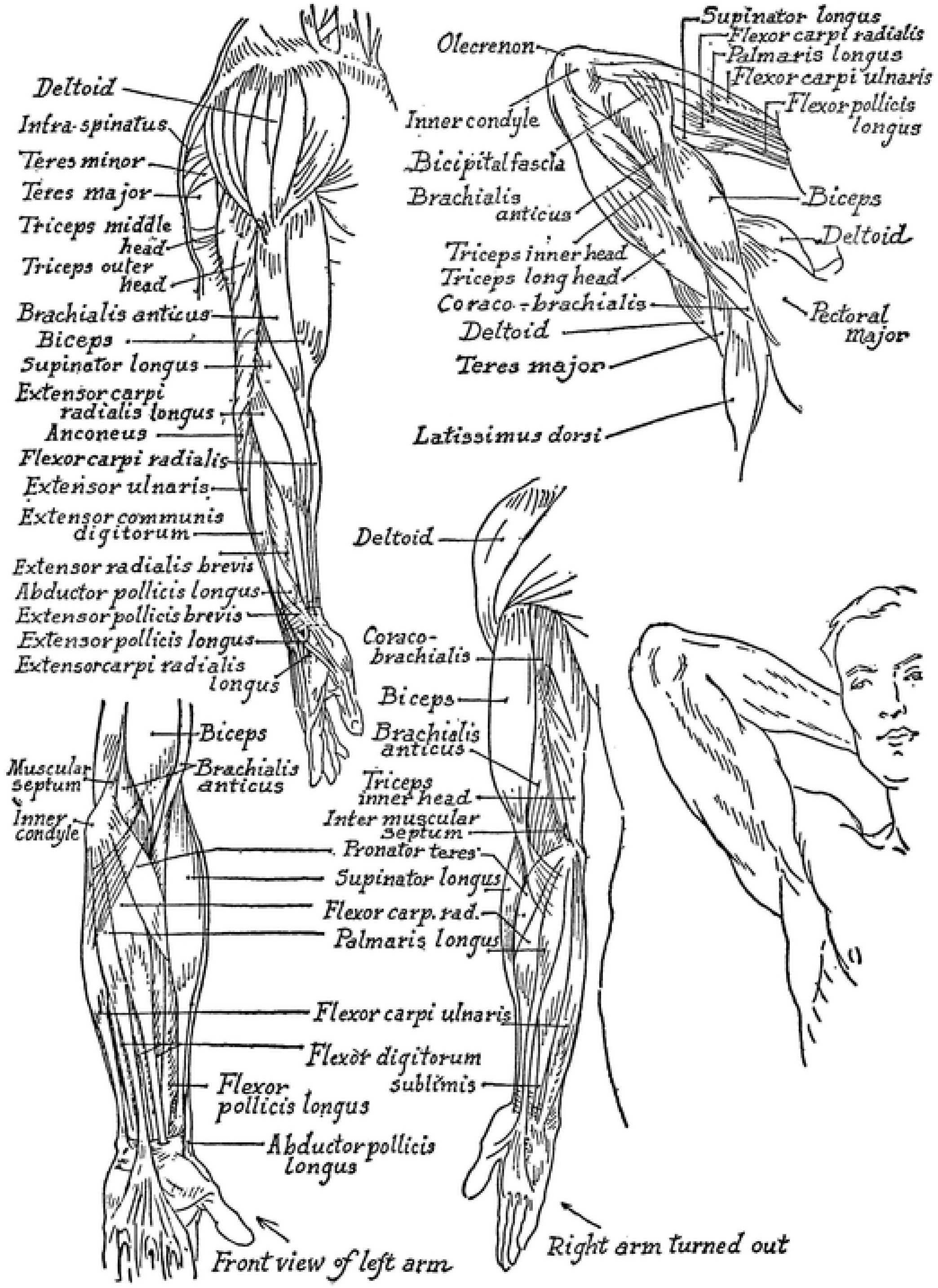

Triceps
Anconeus
Common tendon origin
Biceps insertion
Flexor profundis digitorum
Supinator muscle
Pronator teres
Abductor pollicis longus
Extensor pollicis longus
Extensor of Index
Extensor pollicis brevis
Pronator quadratus

Muscle Attachments


Biceps
Triceps
Supinator longus
Extensor carpi radialis longus
Extensor communis digitorum
Flexor carpi ulnaris
Extensor carpi radialis brevis
Extensor digitorum quinti communis
Abductor pollicis longus
Extensor carpi ulnaris
Extensor pollicis brevis
Extensor pollicis longus
Dorsal carpal Ligament
Extensor of index

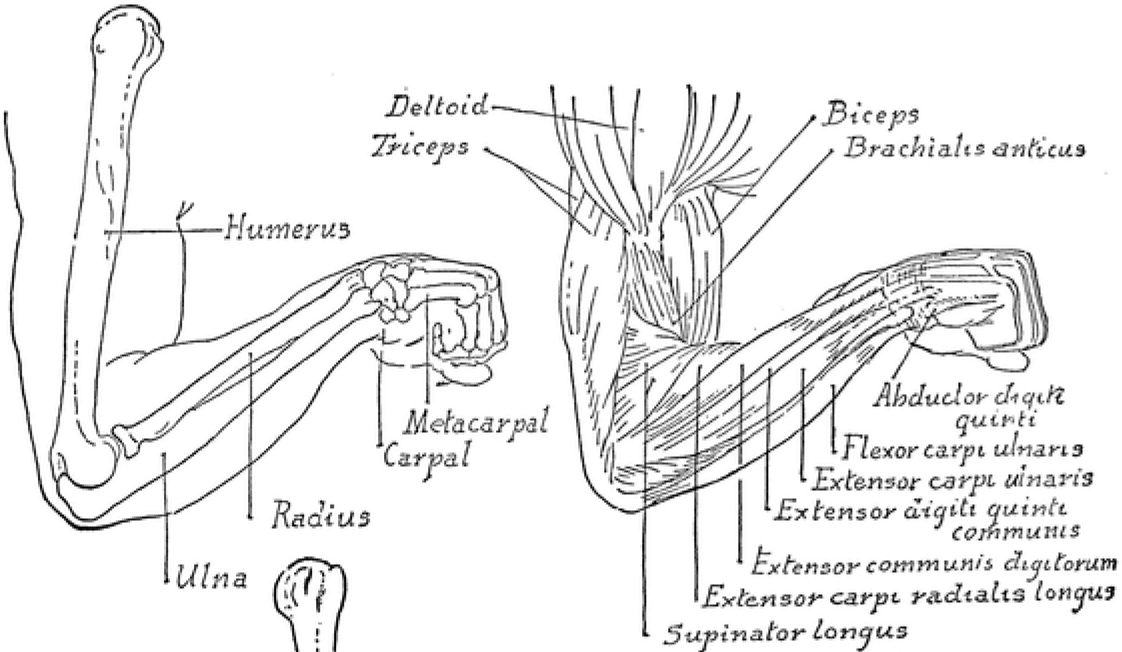
Surface Muscles
Dorsal side of Arm


Flexor carpi ulnaris
Supinator longus
Palmaris longus
Flexor carpi radialis
Pronator teres
Supinator longus
Biceps
Deltoid
Brachialis anticus
Triceps inner head
" long head
Coraco - brachialis
Triceps long head
Triceps inner head
Brachialis anticus
Deltoid
Teres major
Biceps
Supinator longus
Pronator teres
Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Deltoid
Infra-spinatus
Teres major
Triceps long head
" tendon
Triceps inner head
Biceps
Brachialis anticus
Olecranon
Bicipital fascia
Palmaris longus
Flexor carpi radialis
Flex. carpi ulnaris
Ulna
Deltoid
Pectoral
Brachialis anticus
Pronator teres
Olecranon
Triceps outer head
Biceps
Bicipital fascia
Supinator longus
Ex. carpi radialis long.
Extensor carpi radialis brevis
Extensor communis digitorum
Abductor pollicis long.
Extensor pollicis brev.
Extensor pollicis longus
Flexor carp. ulnaris
Extensor carpi ulnaris
Flexor sublimis digitorum
Flexor carpi radialis
Flexor carpi ulnaris
Palmaris longus
Brachialis anticus
Biceps
Deltoid
Triceps tendon
Extensor carpi ulnaris
Triceps inner head
Triceps long head
Coraco - brachialis
Teres major
Latissimus dorsi
Biceps
Brachialis anticus
Supinator longus
Extensor carpi radialis longus
Pronator teres
Ex. carpi rad. brev.
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Annular ligament
Extensor communis digit.

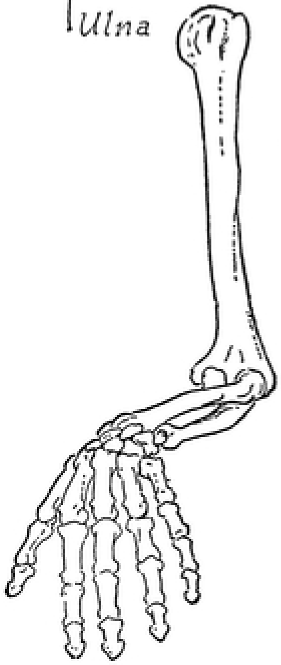

Deltoid
Infra-spinatus
Teres minor
Teres major
Triceps middle head
Triceps outer head
Brachialis anticus
Biceps
Supinator longus
Extensor carpi radialis longus
Anconeus
Flexor carpi radialis
Extensor ulnaris
Extensor communis digitorum
Extensor radialis brevis
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Extensor carpi radialis longus
Olecrenon
Inner condyle
Bicipital fascia
Brachialis anticus
Triceps inner head
Triceps long head
Coraco-brachialis
Deltoid
Teres major
Latissimus dorsi
Supinator longus
Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Flexor pollicis longus
Biceps
Deltoid
Pectoral major
Biceps
Muscular septum
Brachialis anticus
Inner condyle
Pronator teres
Supinator longus
Flexor carp. rad.
Palmaris longus
Flexor carpi ulnaris
Flexor digitorum sublimis
Flexor pollicis longus
Abductor pollicis longus
Deltoid
Coraco-brachialis
Biceps
Brachialis anticus
Triceps inner head
Inter muscular septum

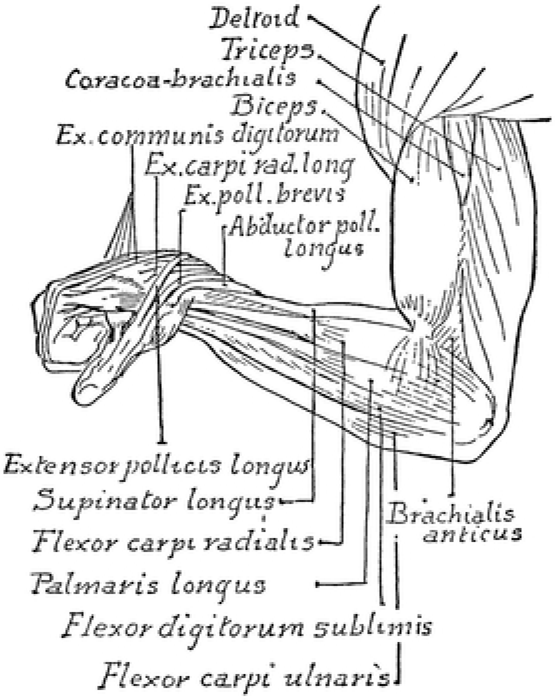
Front view of left arm

Right arm turned out

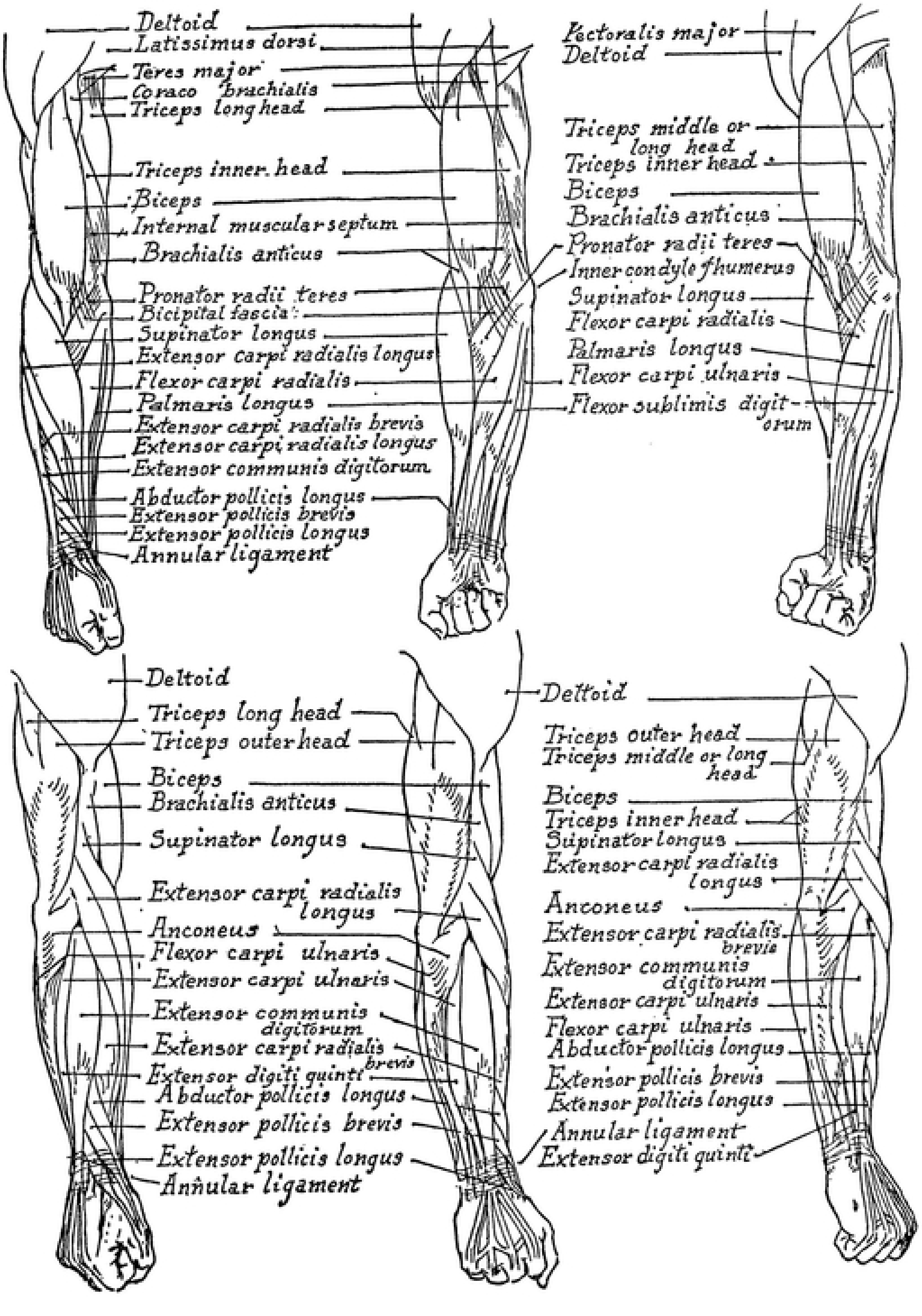

Humerus
Metacarpal
Carpal
Radius
Ulna
Deltoid
Triceps
Biceps
Brachialis anticus
Abductor digiti quinti
Flexor carpi ulnaris
Extensor carpi ulnaris
Extensor digiti quinti communis
Extensor communis digitorum
Extensor carpi radialis longus
Supinator longus

Outer View of Right Arm

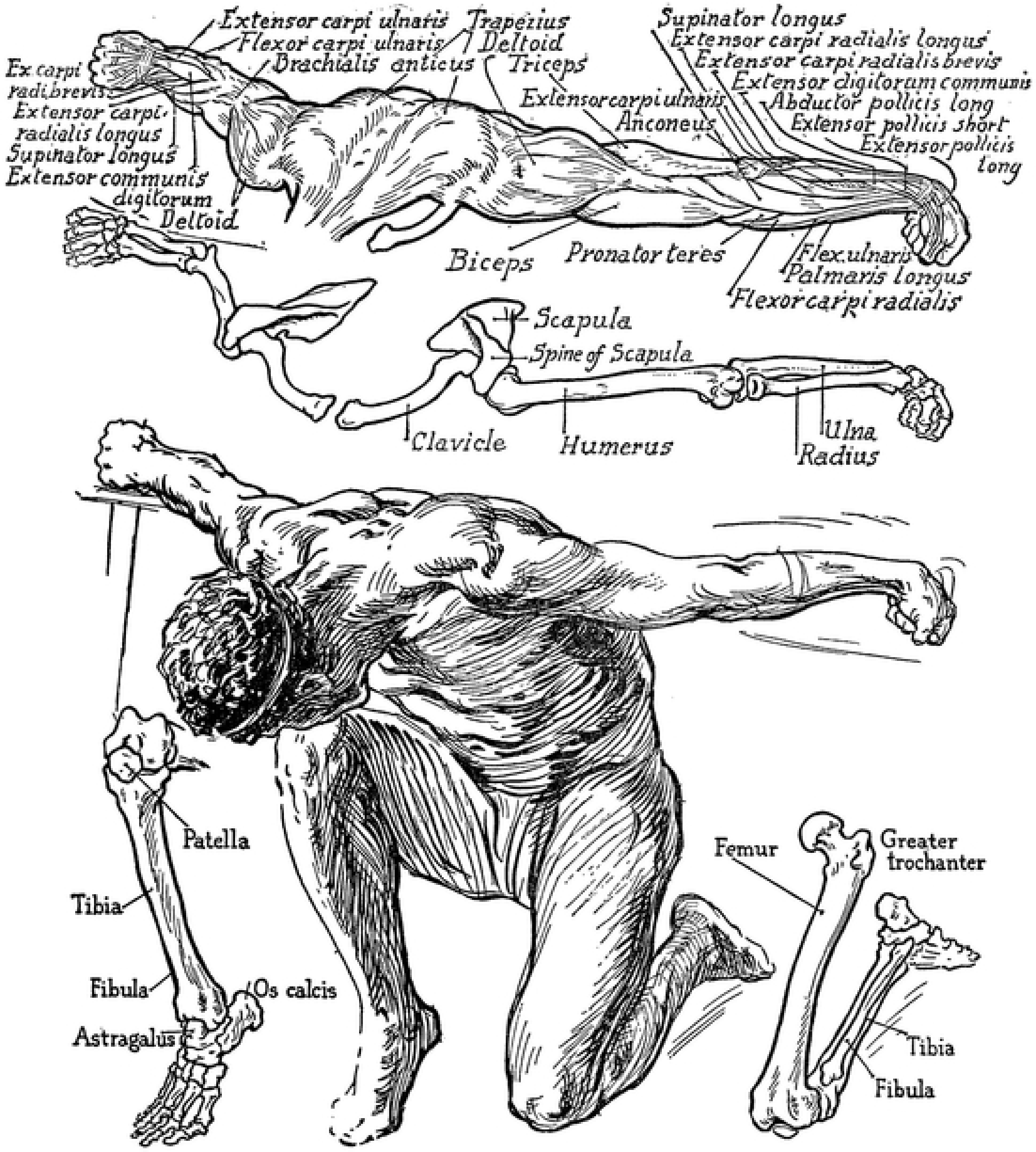


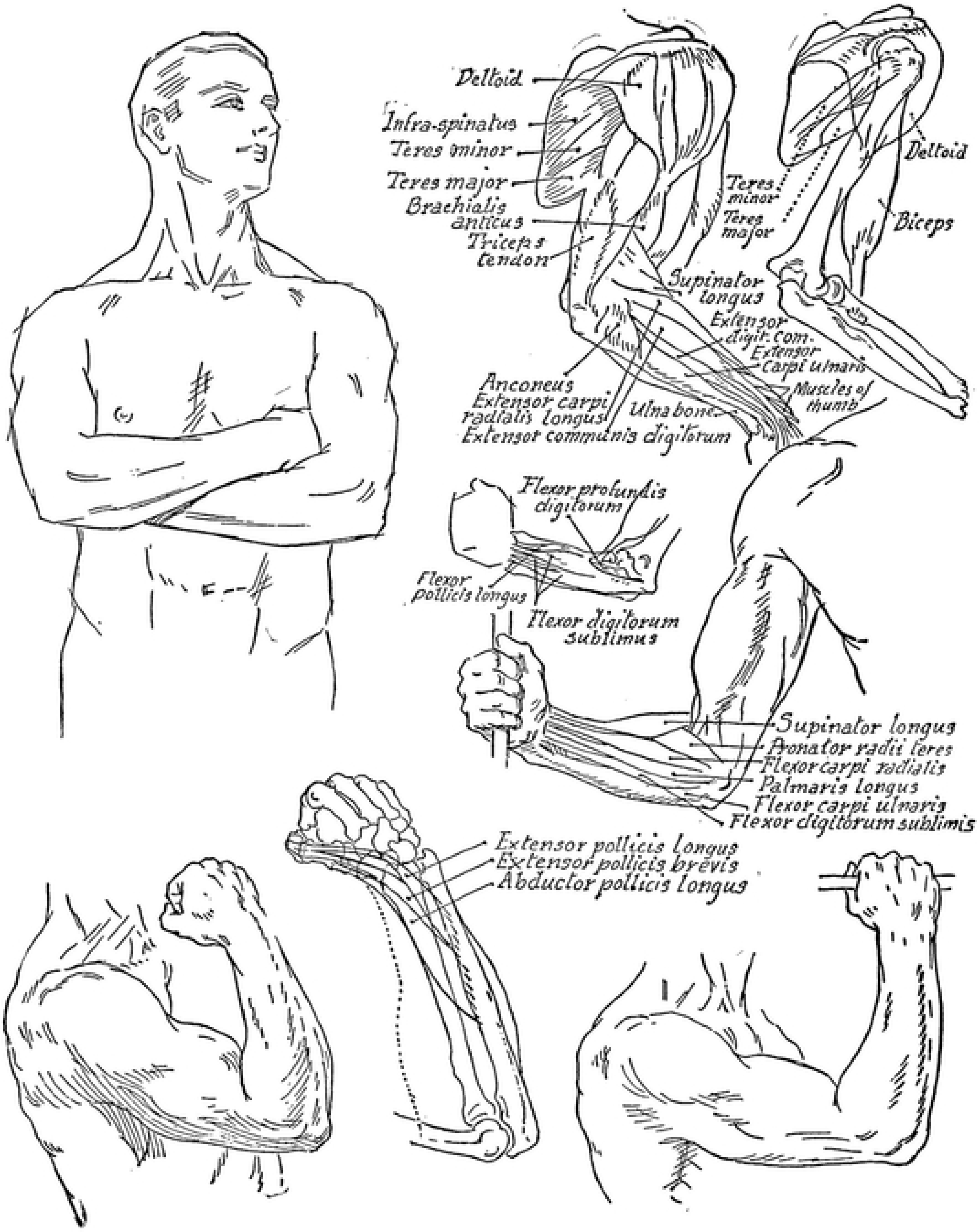

Deltoid
Triceps
Coracoa-brachialis
Biceps
Ex. communis digitorum
Ex. carpi rad. long
Ex. poll. brevis
Abductor poll. longus
Extensor pollicis longus
Supinator longus
Flexor carpi radialis
Palmaris longus
Flexor digitorum sublimis
Flexor carpi ulnaris
Brachialis anticus

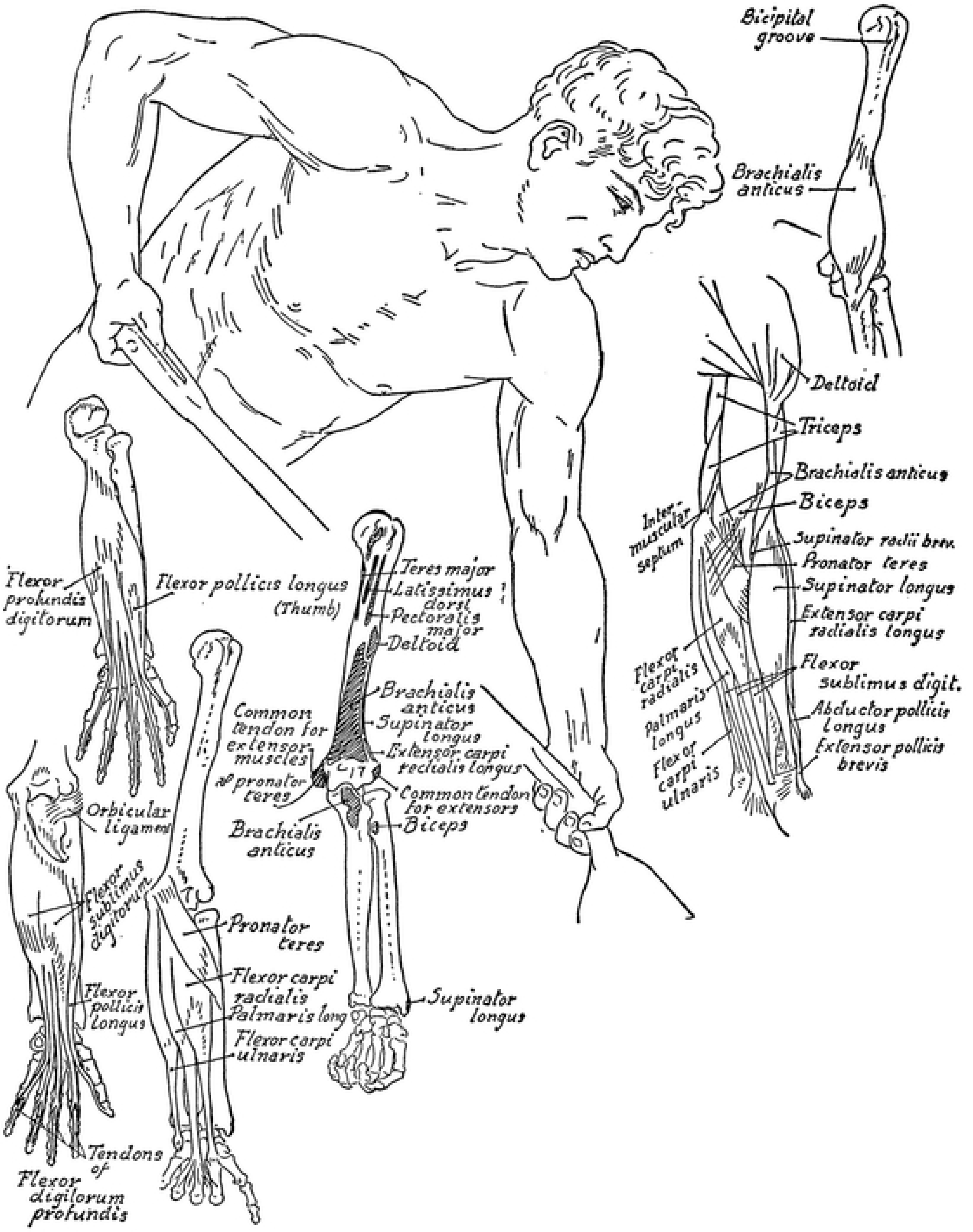
Inner view

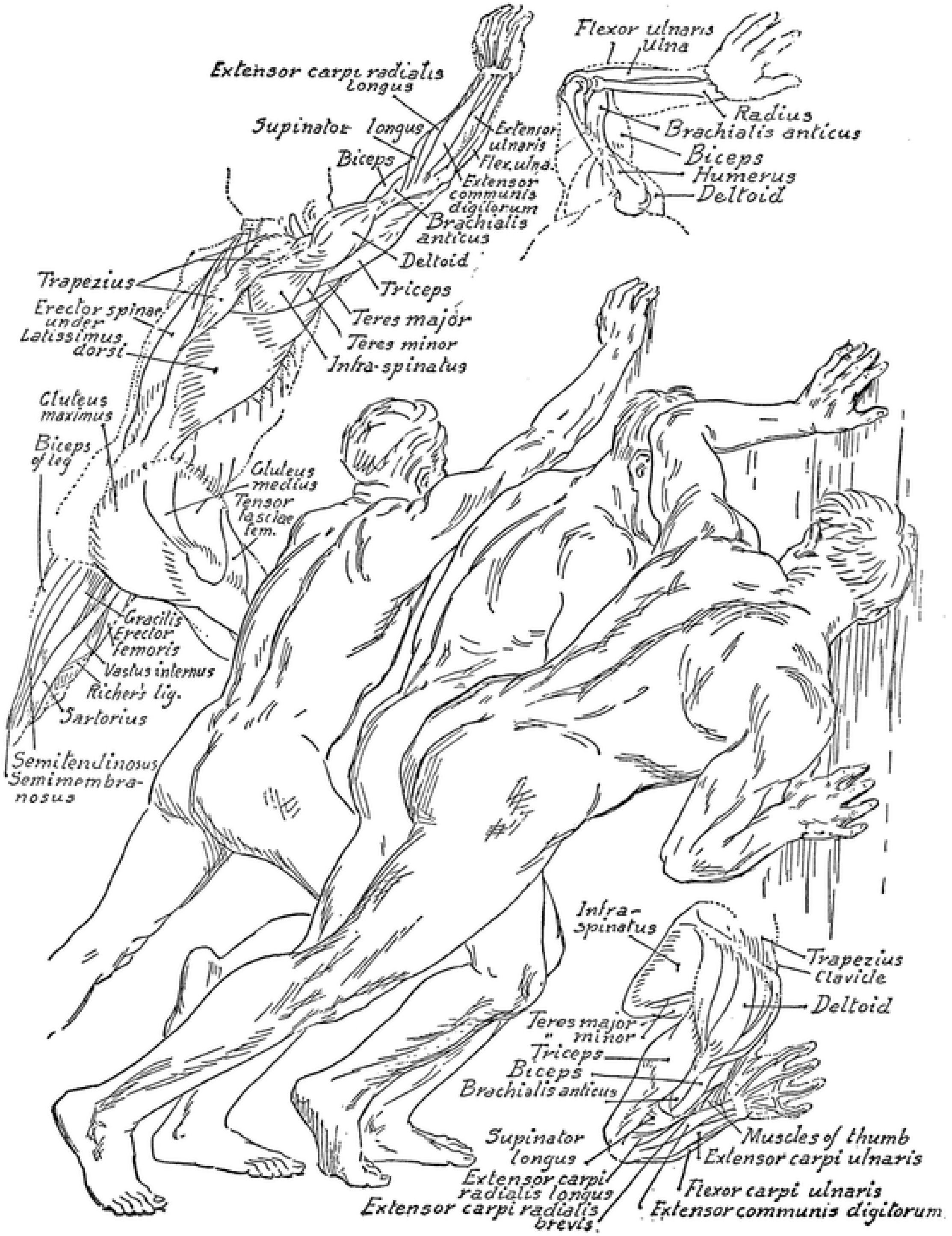


Deltoid
Latissimus dorsi
Teres major
Coraco brachialis
Triceps long head
Triceps inner head
Biceps
Internal muscular septum
Brachialis anticus
Pronator radii teres
Bicipital fascia
Supinator longus
Extensor carpi radialis longus
Flexor carpi radialis
Palmaris longus
Extensor carpi radialis brevis
Extensor carpi radialis longus
Extensor communis digitorum
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Annular ligament
Pectoralis major
Deltoid
Triceps middle or long head
Triceps inner head
Biceps
Brachialis anticus
Pronator radii teres
Inner condyle of humerus
Supinator longus
Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Flexor sublimis digitorum
Deltoid
Triceps long head
Triceps outer head
Biceps
Brachialis anticus
Supinator longus
Extensor carpi radialis longus
Anconeus
Flexor carpi ulnaris
Extensor carpi ulnaris
Extensor communis digitorum
Extensor carpi radialis brevis
Extensor digiti quinti
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Annular ligament
Deltoid
Triceps outer head
Triceps middle or long head
Biceps
Triceps inner head
Supinator longus
Extensor carpi radialis longus
Anconeus
Extensor carpi radialis brevis
Extensor communis digitorum
Extensor carpi ulnaris
Flexor carpi ulnaris
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Annular ligament
Extensor digiti quinti


Extensor carpi ulnaris
Flexor carpi ulnaris
Brachialis anticus
Trapezius
Deltoid
Triceps
Ex.carpi radi.brevis
Extensor carpi radialis longus
Supinator longus
Extensor communis digitorum
Deltoid
Supinator longus
Extensor carpi radialis longus
Extensor carpi radialis brevis
Extensor digitorum communis
Extensor carpi ulnaris
Abductor pollicis long
Anconeus
Extensor pollicis short
Extensor pollicis long
Biceps
Pronator teres
Flex.ulnaris
Palmaris longus
Flexor carpi radialis
Scapula
Spine of Scapula
Clavicle
Humerus
Ulna
Radius
Patella
Tibia
Fibula
Os calcis
Astragalus
Femur
Greater trochanter
Tibia
Fibula


Deltoid
Infra-spinatus
Teres minor
Teres major
Brachialis anticus
Triceps tendon
Teres minor
Teres major
Deltoid
Biceps
Supinator longus
Extensor digit. com.
Extensor carpi ulnaris
Muscles of thumb
Anconeus
Extensor carpi radialis longus
Ulna bone
Extensor communis digitorum
Flexor profundis digitorum
Flexor pollicis longus
Flexor digitorum sublimus
Supinator longus
Pronator radii teres
Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Flexor digitorum sublimis
Extensor pollicis longus
Extensor pollicis brevis
Abductor pollicis longus

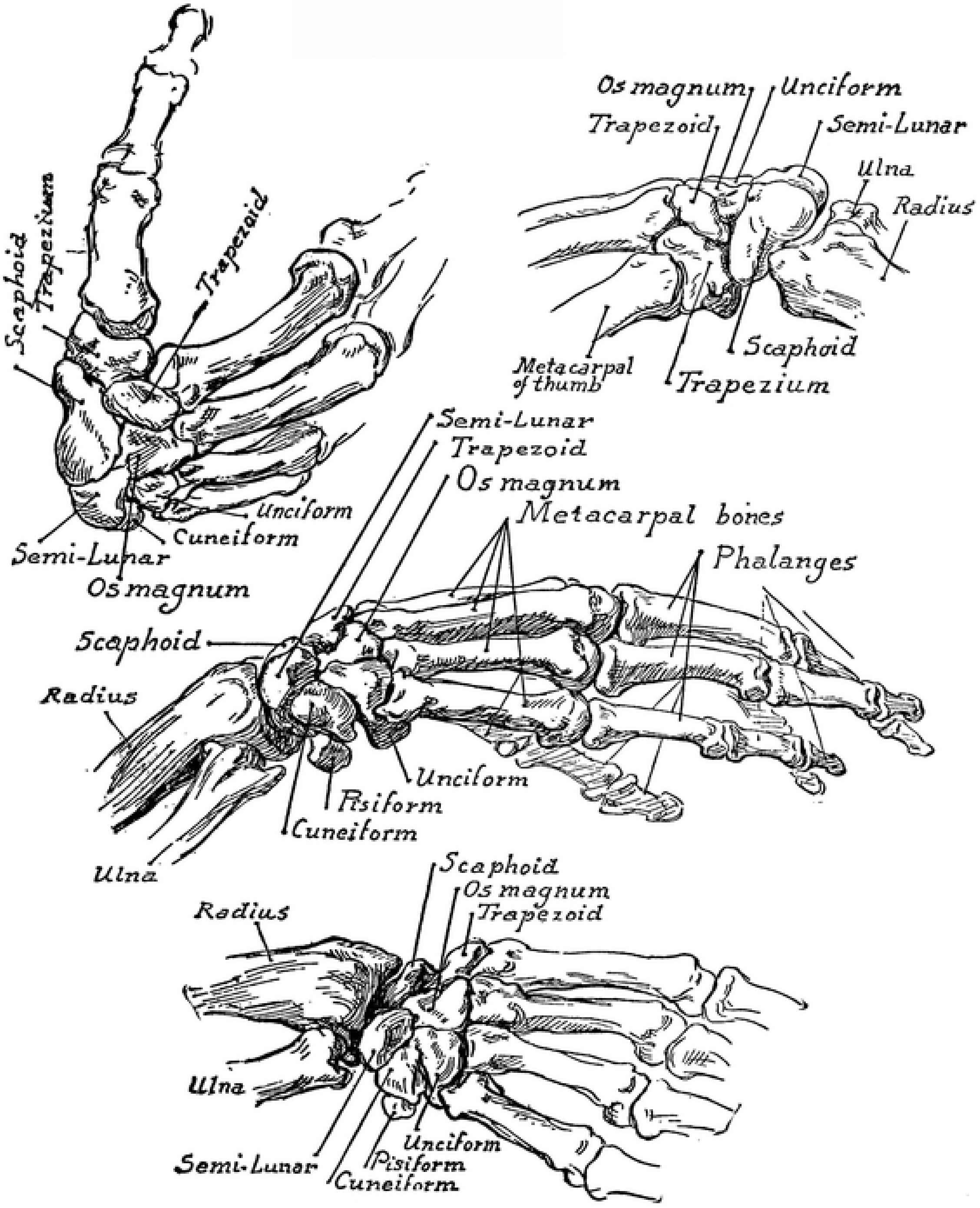

Bicipital groove
Brachialis anticus
Deltoid
Triceps
Brachialis anticus
Biceps
Inter-muscular septum
Supinator radii brev.
Pronator teres
Supinator longus
Extensor carpi radialis longus
Flexor carpi radialis
Flexor sublimus digit.
Palmaris longus
Abductor pollicis longus
Flexor carpi ulnaris
Extensor pollicis brevis
Flexor profundis digitorum
Flexor pollicis longus
(Thumb)
Teres major
Latissimus dorsi
Pectoralis major
Deltoid
Brachialis anticus
Supinator longus
Common tendon for extensor muscles
Extensor carpi radialis longus
pronator teres
Common tendon for extensors
Biceps
Brachialis anticus
Orbicular ligament
Flexor sublimus digitorum
Pronator teres
Flexor carpi radialis
Palmaris long
Flexor carpi ulnaris
Supinator longus
Flexor pollicis longus
Tendons of Flexor digitorum profundis

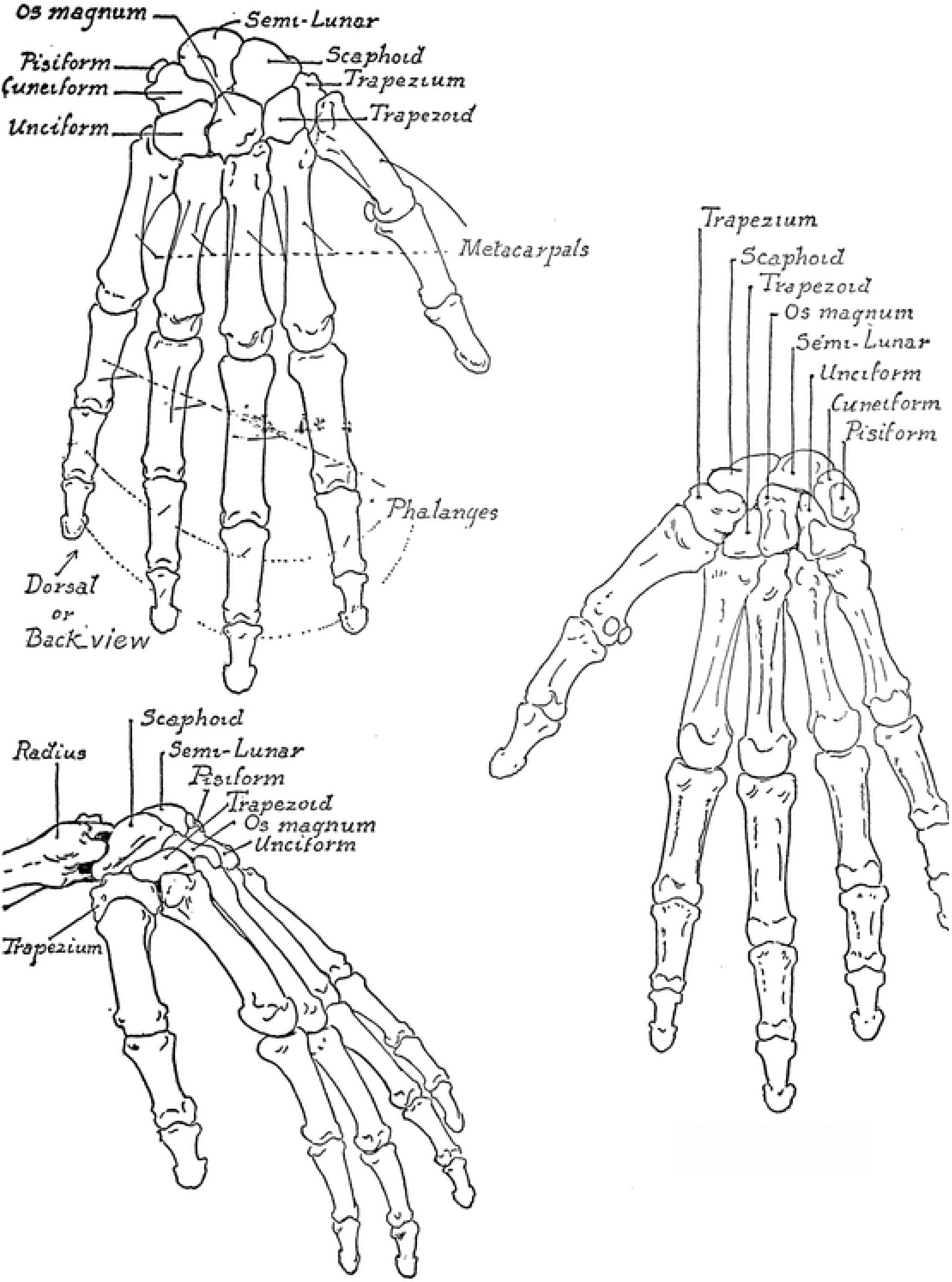

Extensor carpi radialis longus
Supinator longus
Biceps
Extensor ulnaris
Flex. ulna.
Extensor communis digitorum
Brachialis anticus
Deltoid
Triceps
Teres major
Teres minor
Infra-spinatus
Trapezius
Erector spinae under
Latissimus dorsi
Gluteus maximus
Biceps of leg
Gluteus medius
Tensor fasciae fem.
Gracilis
Erector femoris
Vastus internus
Richer's lig.
Sartorius
Semitendinosus
Semimembranosus
Flexor ulnaris
Ulna
Radius
Brachialis anticus
Biceps
Humerus
Deltoid
Infra-spinatus
Trapezius
Clavicle
Deltoid
Teres major
" minor
Triceps
Biceps
Brachialis anticus
Supinator longus
Extensor carpi radialis longus
Extensor carpi radialis brevis
Muscles of thumb
Extensor carpi ulnaris
Flexor carpi ulnaris
Extensor communis digitorum

PART SIX

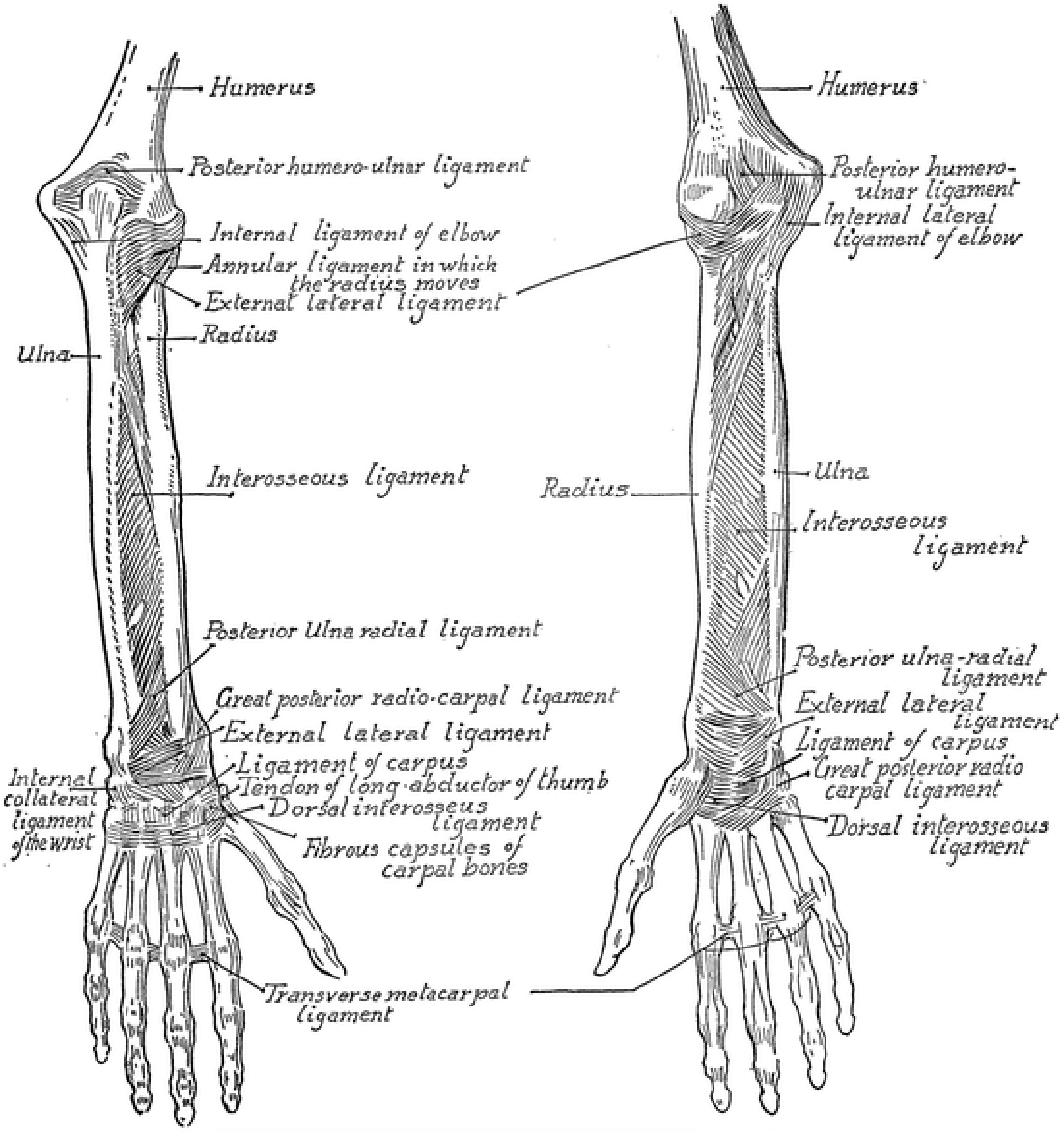
THE HAND

THE HAND


Scaphoid
Trapezium
Trapezoid
Unciform
Cuneiform
Semi-Lunar
Os magnum
Os magnum
Unciform
Trapezoid
Semi-Lunar
Ulna
Radius
Scaphoid
Metacarpal of thumb
Trapezium
Semi-Lunar
Trapezoid
Os magnum
Metacarpal bones
Phalanges
Scaphoid
Radius
Unciform
Pisiform
Cuneiform
Ulna
Scaphoid
Os magnum
Trapezoid
Radius
Ulna
Semi-Lunar
Unciform
Pisiform
Cuneiform


Os magnum
Semi-Lunar
Pisiform
Scaphoid
Cuneiform
Trapezium
Trapezoid
Unciform
Metacarpals
Phalanges
Dorsal or Back view
Trapezium
Scaphoid
Trapezoid
Os magnum
Semi-Lunar
Unciform
Cuneiform
Pisiform
Radius
Scaphoid
Semi-Lunar
Pisiform
Trapezoid
Os magnum
Unciform
Trapezium

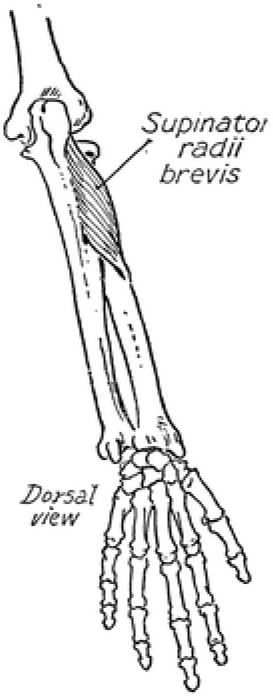
Palm view

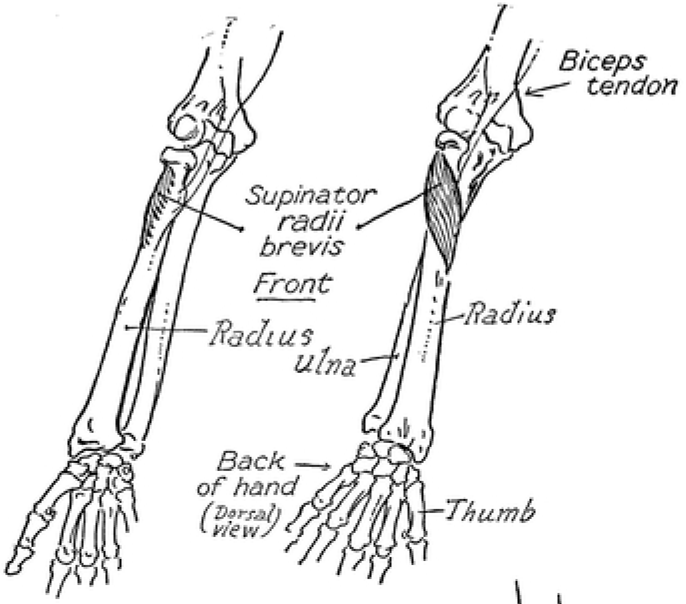

Humerus
Posterior humero-ulnar ligament
Internal ligament of elbow
Annular ligament in which the radius moves
External lateral ligament
Radius
Ulna
Interosseous ligament
Posterior Ulna radial ligament
Great posterior radio-carpal ligament
External lateral ligament
Ligament of carpus
Tendon of long-abductor of thumb
Internal collateral ligament of the wrist
Dorsal interosseus ligament
Fibrous capsules of carpal bones
Transverse metacarpal ligament
Humerus
Posterior humero-ulnar ligament
Internal lateral ligament of elbow
Radius
Ulna
Interosseous ligament
Posterior ulna-radial ligament
External lateral ligament
Ligament of carpus
Great posterior radio carpal ligament
Dorsal interosseous ligament

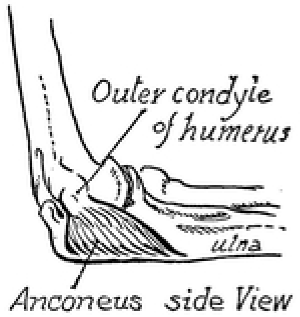
Back

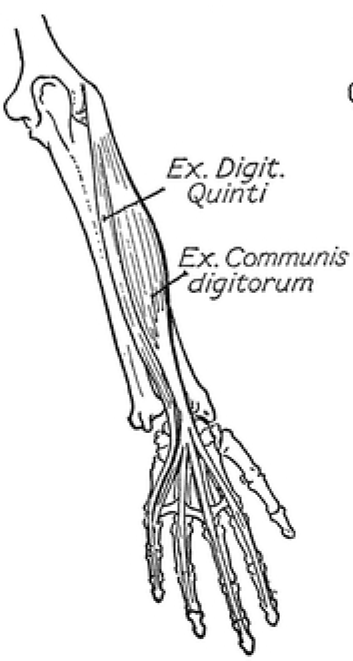
Front

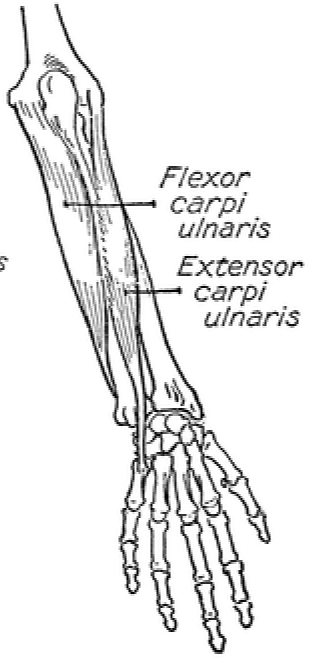
Ligaments of Forearm

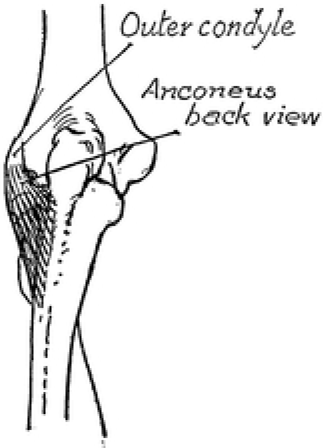

Supinatoı
radii
brevis
Dorsal
view

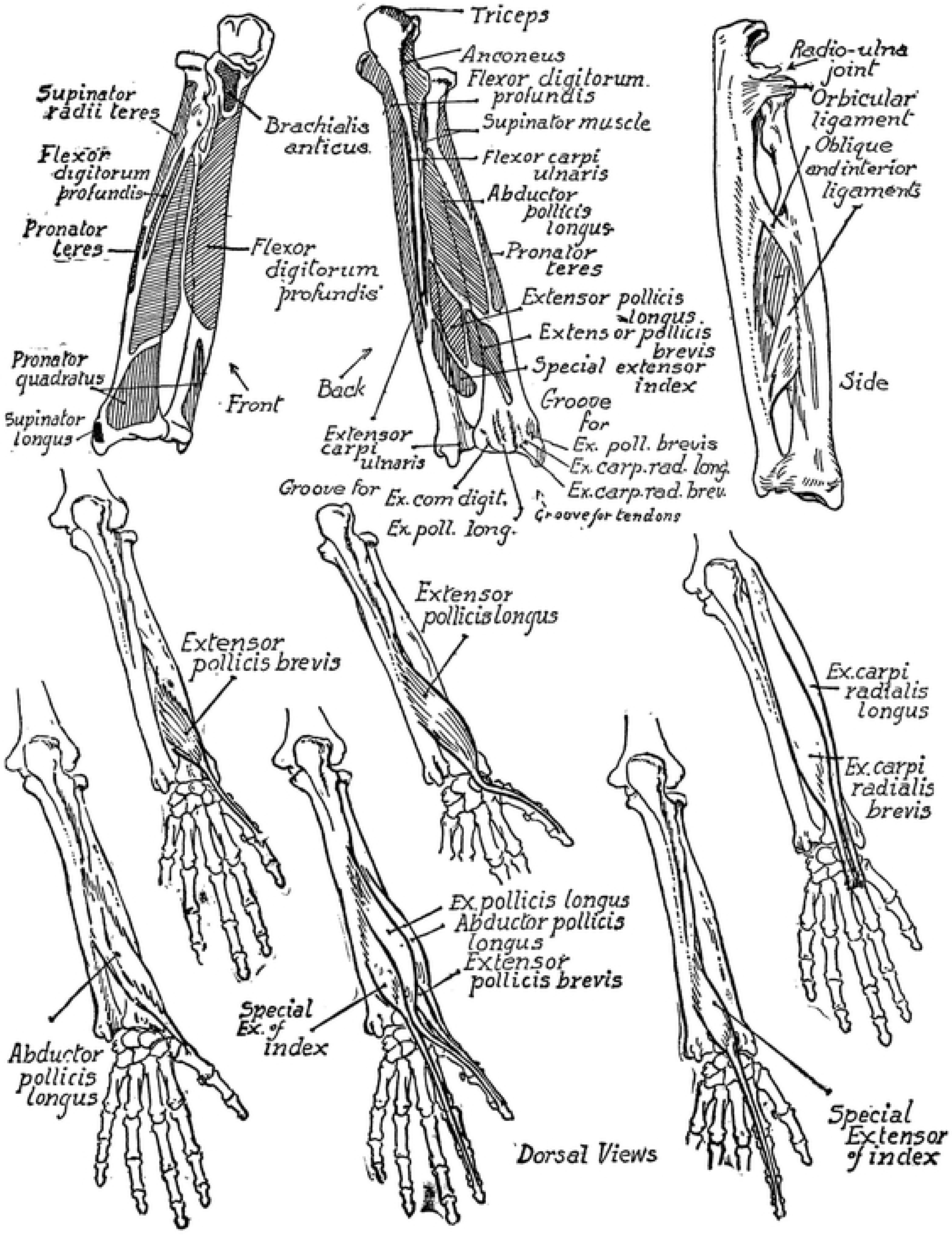

Biceps
tendon
Supinator
radii
brevis
Front
Radius
Radius
ulna
Back
of hand
(Dorsal)
view)
Thumb
Palm
view

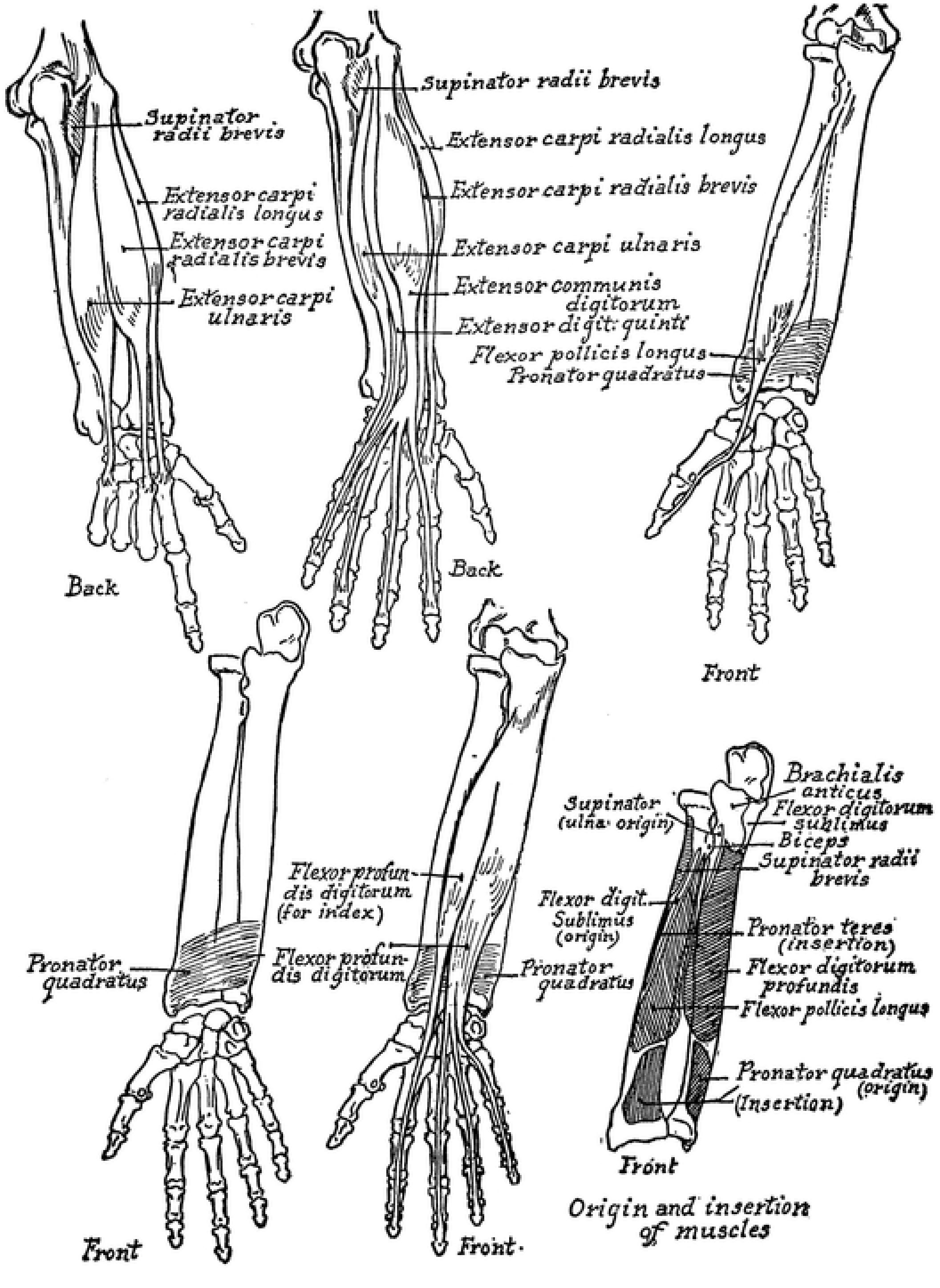

Outer condyle
of humerus
ulna
Anconeus side View


Ex. Digit.
Quinti
Ex. Communis
digitorum

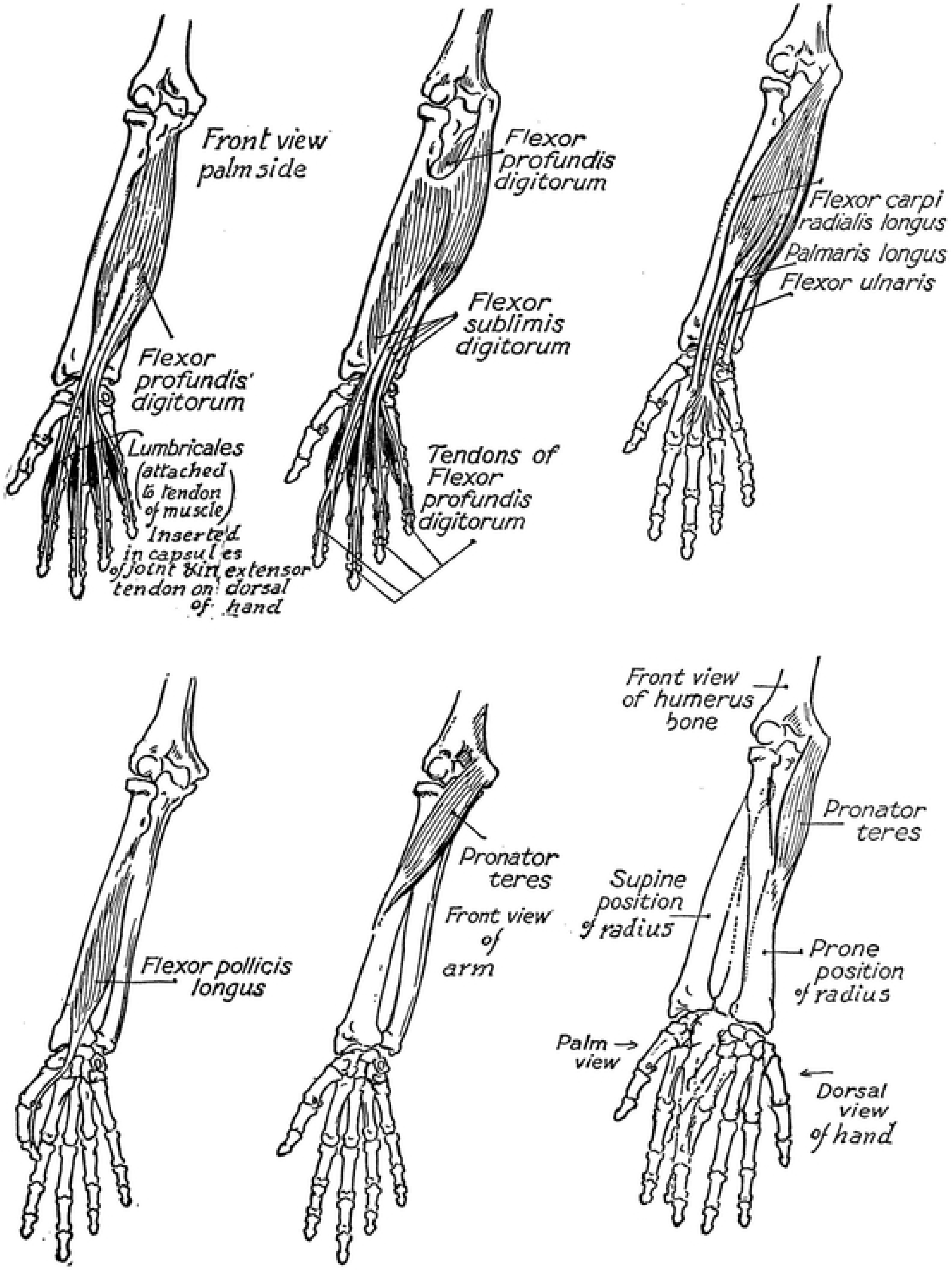

Flexor
carpi
ulnaris
Extensor
carpi
ulnaris

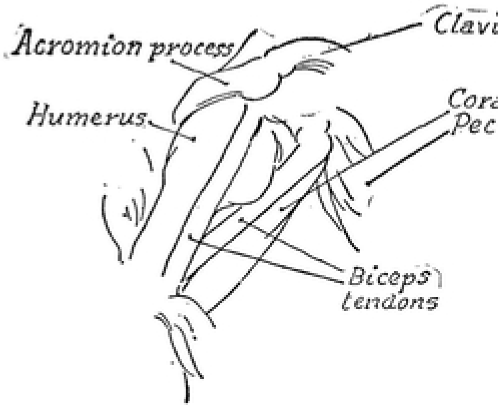

Outer condyle
Anconeus
back view


Supinator radii teres
Flexor digitorum profundis
Pronator teres
Pronator quadratus
Supinator longus
Brachialis anticus
Flexor digitorum profundis
Front
Triceps
Anconeus
Flexor digitorum profundis
Supinator muscle
Flexor carpi ulnaris
Abductor pollicis longus
Pronator teres
Extensor pollicis longus
Extensor pollicis brevis
Special extensor index
Back
Extensor carpi ulnaris
Groove for Ex. com digit.
Ex. poll. long.
Groove for
Ex. poll. brevis
Ex. carp. rad. long.
Ex. carp. rad. brev.
Groove for tendons
Radio-ulna joint
Orbicular ligament
Oblique and interior ligaments
Side
Extensor pollicis brevis
Extensor pollicis longus
Ex. carpi radialis longus
Ex. carpi radialis brevis
Ex. pollicis longus
Abductor pollicis longus
Extensor pollicis brevis
Special Ex. of index
Abductor pollicis longus
Dorsal Views
Special Extensor of index

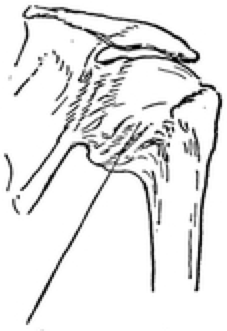

Supinator radii brevis
Extensor carpi radialis longus
Extensor carpi radialis brevis
Extensor carpi ulnaris
Back
Supinator radii brevis
Extensor carpi radialis longus
Extensor carpi radialis brevis
Extensor carpi ulnaris
Extensor communis digitorum
Extensor digit: quinti
Back
Flexor pollicis longus
Pronator quadratus
Front
Pronator quadratus
Flexor profundis digitorum
Front
Flexor profundis digitorum (for index)
Pronator quadratus
Front.
Brachialis anticus
Supinator (ulna origin)
Flexor digitorum sublimus
Biceps
Supinator radii brevis
Flexor digit. Sublimus (origin)
Pronator teres (insertion)
Flexor digitorum profundis
Flexor pollicis longus
Pronator quadratus (origin)
(Insertion)
Front

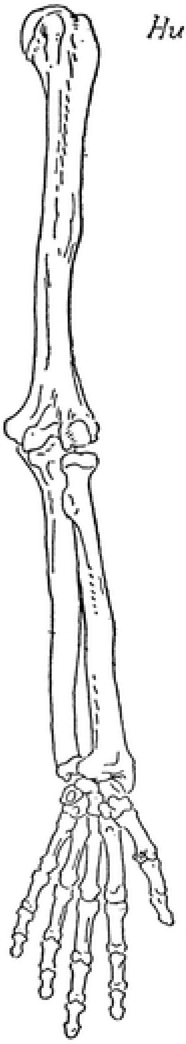
Origin and insertion of muscles


Front view palm side
Flexor profundis' digitorum
Lumbricales (attached to tendon of muscle)
Inserted in capsules of joint & in extensor tendon on dorsal of hand
Flexor profundis digitorum
Flexor sublimis digitorum
Tendons of Flexor profundis digitorum
Flexor carpi radialis longus
Palmaris longus
Flexor ulnaris
Flexor pollicis longus
Pronator teres
Front view of arm
Front view of humerus bone
Pronator teres
Supine position of radius
Prone position of radius
Palm view
Dorsal view of hand

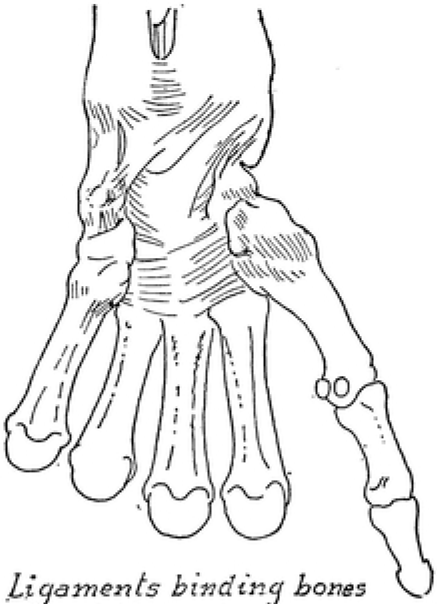

Acromion process
Clavicle
Humerus
Coraco brachialis
Pectoral minor
Biceps tendons

Shoulder right side

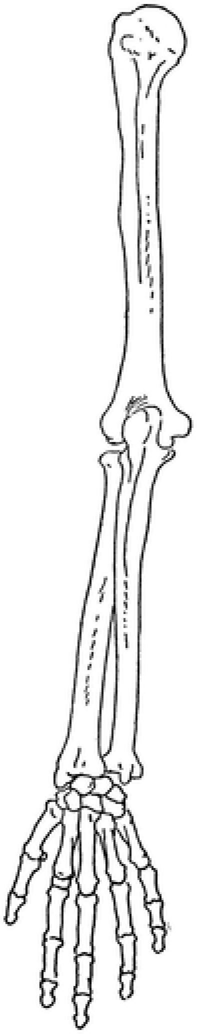

Capsula articularis of head of humerus



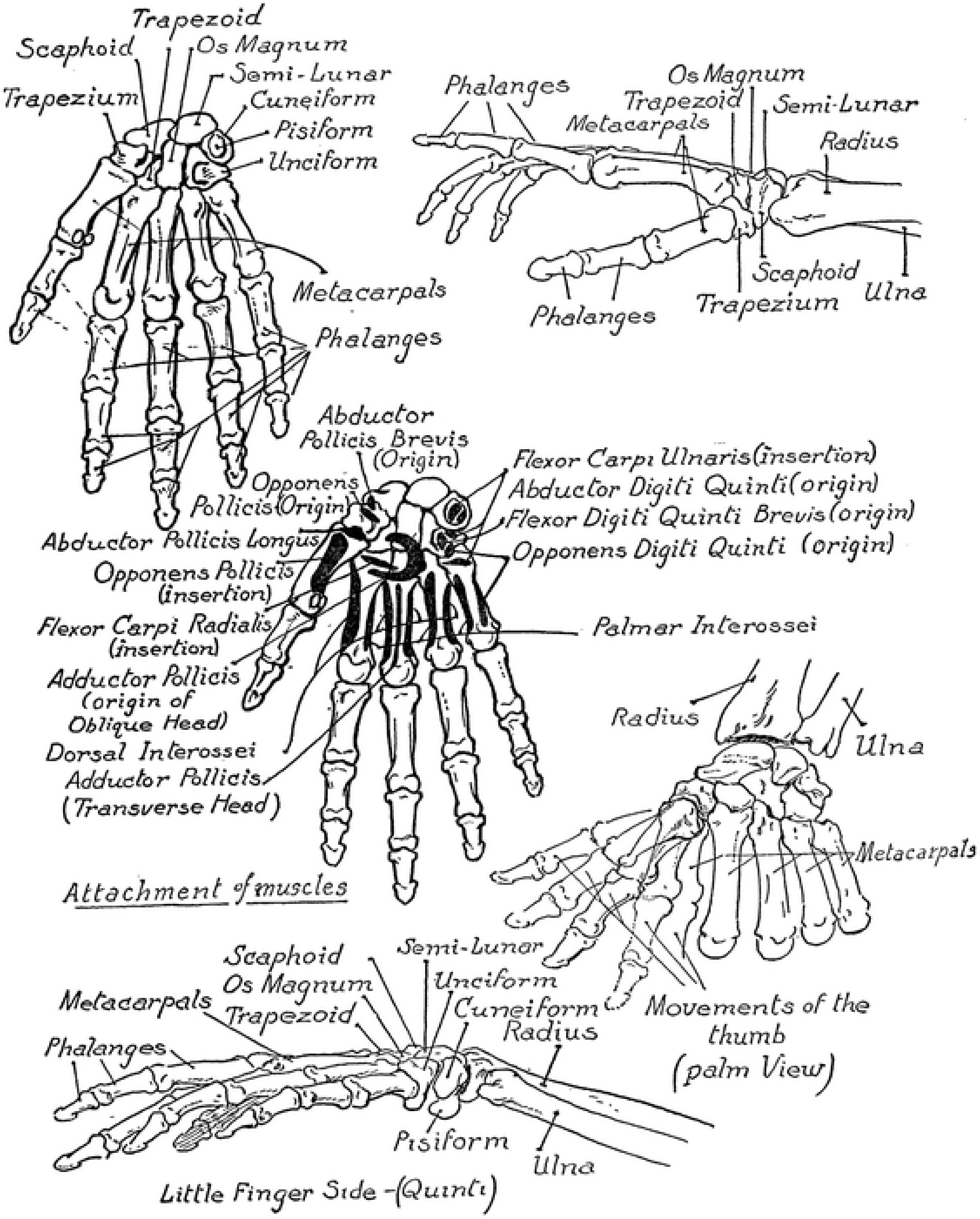
Front view of left arm bones



Ligaments binding bones of the wrist



Back view of left arm bones

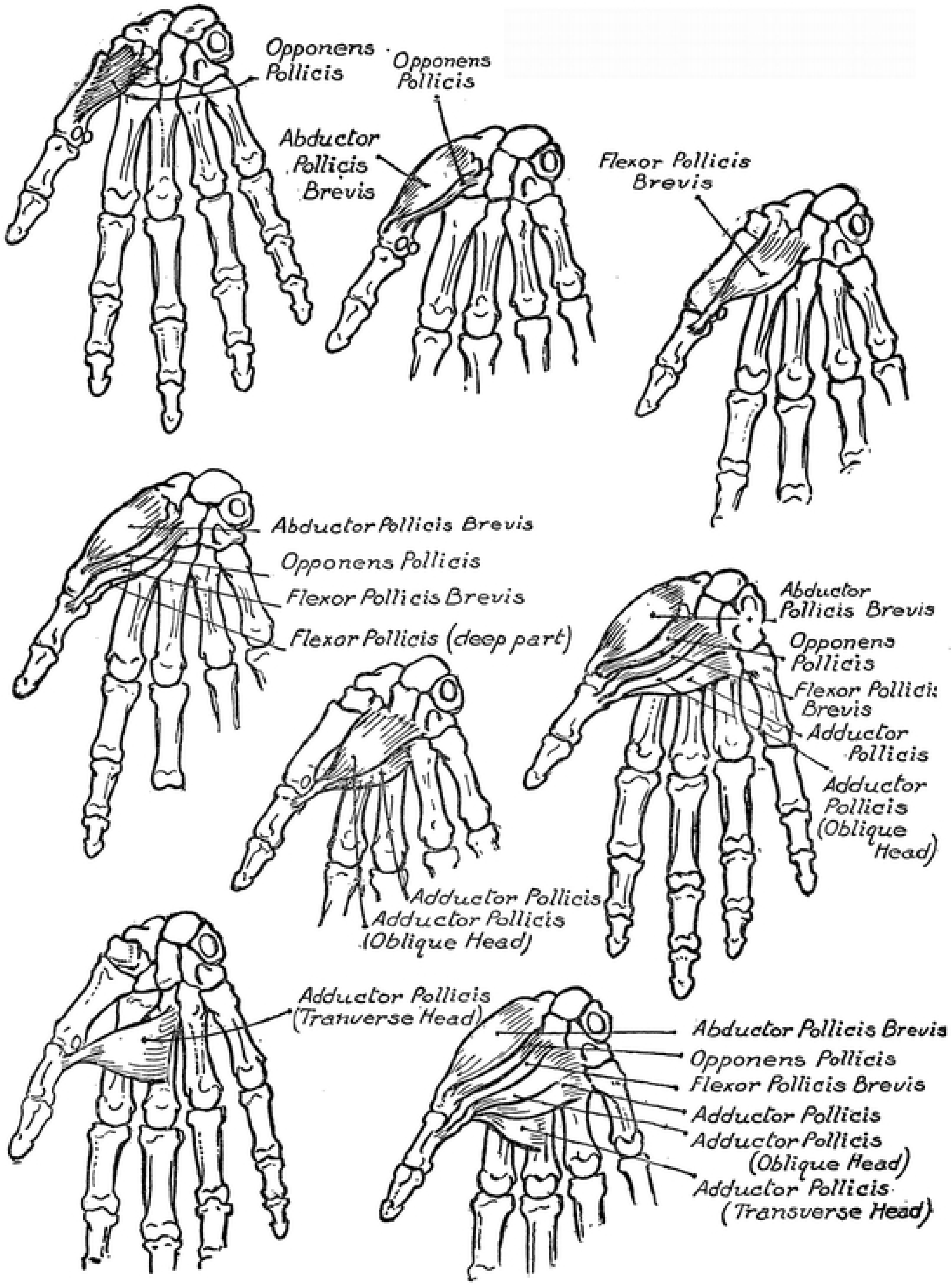


Trapezoid
Scaphoid
Os Magnum
Semi-Lunar
Trapezium
Cuneiform
Pisiform
Unciform
Metacarpals
Phalanges
Phalanges
Os Magnum
Trapezoid
Semi-Lunar
Metacarpals
Radius
Scaphoid
Ulna
Phalanges
Trapezium
Abductor Pollicis Brevis (Origin)
Opponens Pollicis (Origin)
Abductor Pollicis Longus
Opponens Pollicis (insertion)
Flexor Carpi Radialis (insertion)
Adductor Pollicis (origin of Oblique Head)
Dorsal Interossei
Adductor Pollicis (Transverse Head)
Flexor Carpi Ulnaris (insertion)
Abductor Digiti Quinti (origin)
Flexor Digiti Quinti Brevis (origin)
Opponens Digiti Quinti (origin)
Palmar Interossei
Radius
Ulna
Metacarpals
Scaphoid
Os Magnum
Semi-Lunar
Unciform
Metacarpals
Trapezoid
Cuneiform
Radius
Phalanges
Pisiform
Ulna

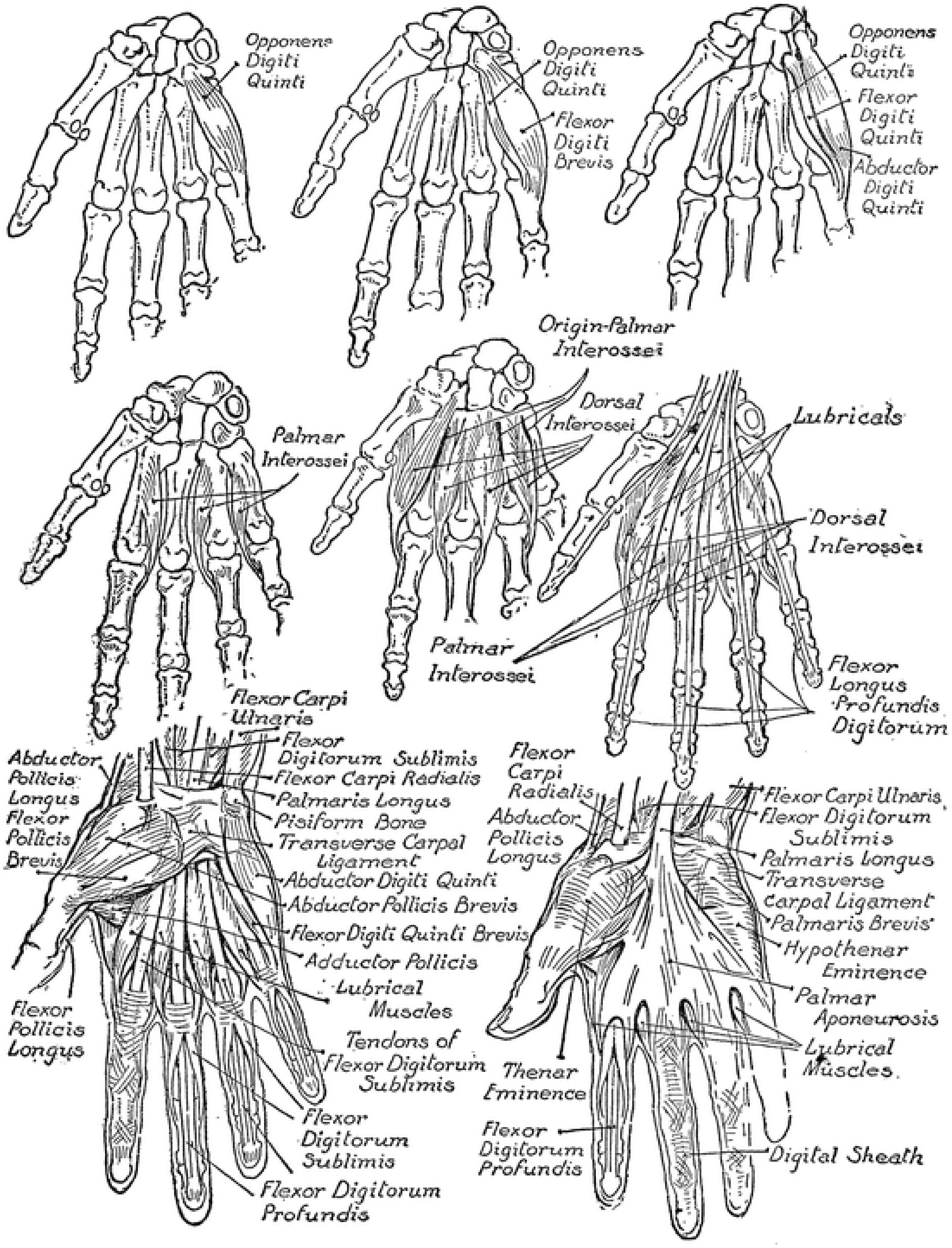
Attachment of muscles

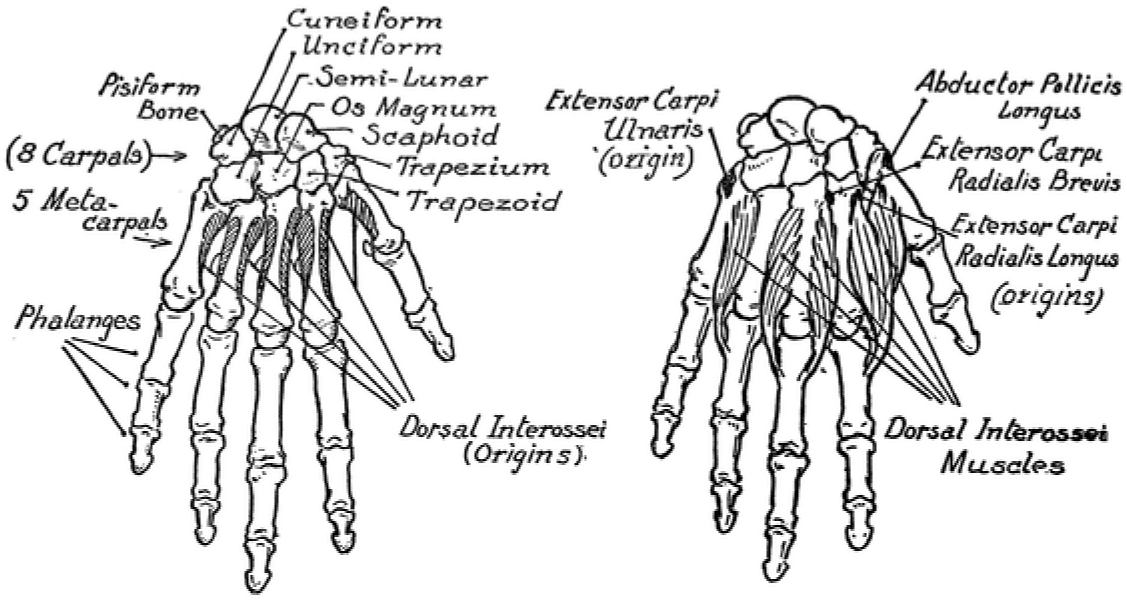
Movements of the thumb (palm View)

Little Finger Side -(Quinti)

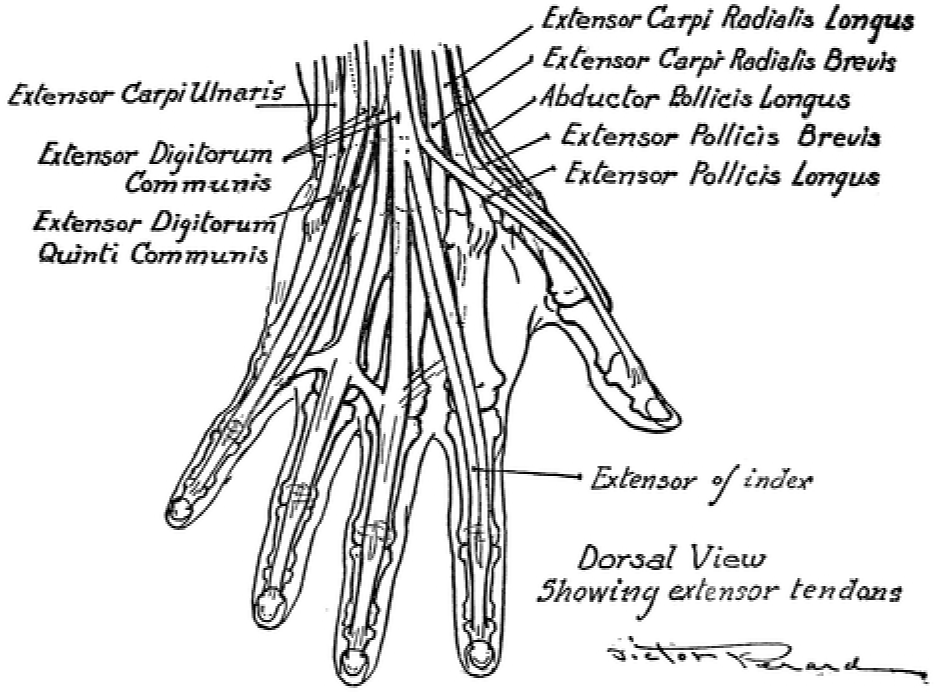

Opponens Pollicis
Opponens Pollicis
Abductor Pollicis Brevis
Flexor Pollicis Brevis
Abductor Pollicis Brevis
Opponens Pollicis
Flexor Pollicis Brevis
Flexor Pollicis (deep part)
Abductor Pollicis Brevis
Opponens Pollicis
Flexor Pollicis Brevis
Adductor Pollicis
Adductor Pollicis (Oblique Head)
Adductor Pollicis
Adductor Pollicis (Oblique Head)
Adductor Pollicis (Tranverse Head)
Abductor Pollicis Brevis
Opponens Pollicis
Flexor Pollicis Brevis
Adductor Pollicis
Adductor Pollicis (Oblique Head)
Adductor Pollicis (Transverse Head)

Short muscled of thumb

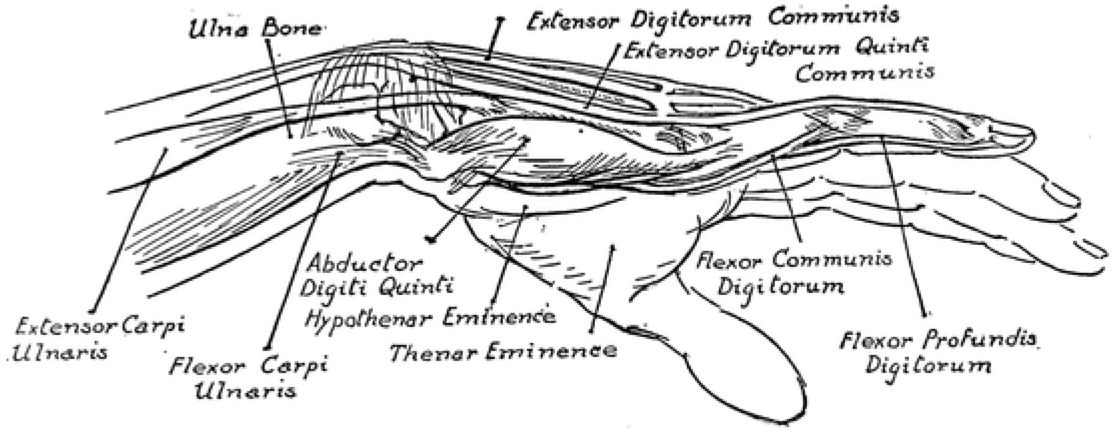

Opponens Digiti Quinti
Opponens Digiti Quinti
Flexor Digiti Brevis
Opponens Digiti Quinti
Flexor Digiti Quinti
Abductor Digiti Quinti
Origin-Palmar Interossei
Palmar Interossei
Dorsal Interossei
Lubricals
Dorsal Interossei
Palmar Interossei
Flexor Longus Profundis Digitorum
Flexor Carpi Ulnaris
Abductor Pollicis Longus
Flexor Pollicis Brevis
Flexor Digitorum Sublimis
Flexor Carpi Radialis
Palmaris Longus
Pisiform Bone
Transverse Carpal Ligament
Abductor Digiti Quinti
Abductor Pollicis Brevis
Flexor Digiti Quinti Brevis
Adductor Pollicis
Lubrical Muscles
Flexor Pollicis Longus
Tendons of Flexor Digitorum Sublimis
Flexor Digitorum Sublimis
Flexor Digitorum Profundis
Flexor Carpi Radialis
Abductor Pollicis Longus
Flexor Carpi Ulnaris
Flexor Digitorum Sublimis
Palmaris Longus
Transverse Carpal Ligament
Palmaris Brevis
Hypothenar Eminence
Palmar Aponeurosis
Lubrical Muscles
Thenar Eminence
Flexor Digitorum Profundis
Digital Sheath

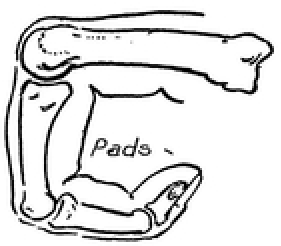

Cuneiform
Unciform
Semi-Lunar
Os Magnum
Scaphoid
Trapezium
Trapezoid
Pisiform Bone
(8 Carpals)→
5 Meta-carpals
Phalanges
Dorsal Interossei (Origins).
Extensor Carpi Ulnaris (origin)
Abductor Pollicis Longus
Extensor Carpi Radialis Brevis
Extensor Carpi Radialis Longus (origins)
Dorsal Interossei Muscles

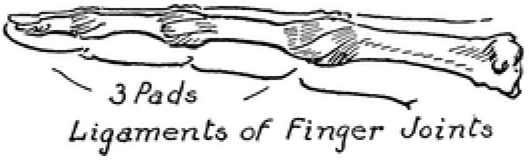
Dorsal View (back)

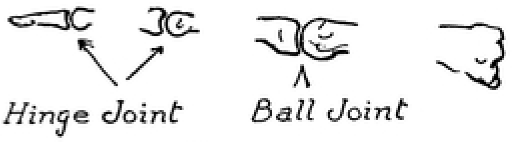

Extensor Carpi Radialis Longus
Extensor Carpi Radialis Brevis
Abductor Pollicis Longus
Extensor Pollicis Brevis
Extensor Pollicis Longus
Extensor Carpi Ulnaris
Extensor Digitorum Communis
Extensor Digitorum Quinti Communis
Extensor of index
Victor Perard

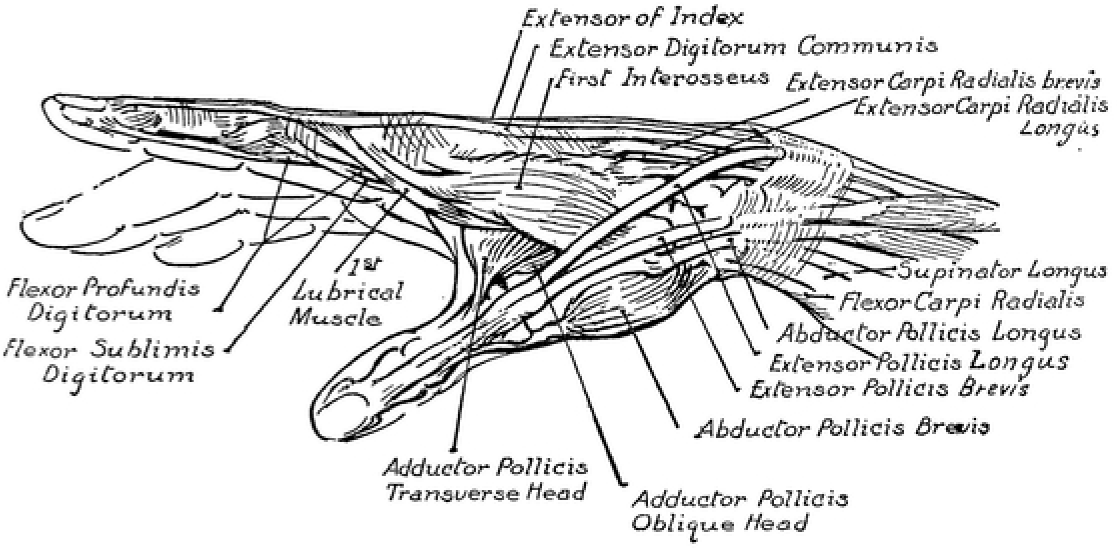
Dorsal View
Showing extensor tendons

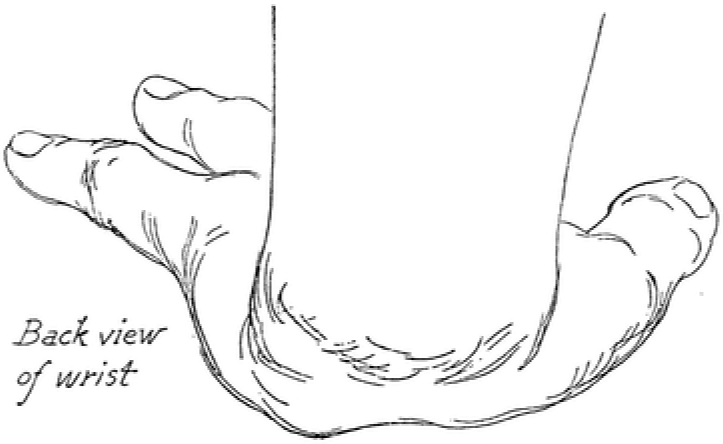

Ulna Bone
Extensor Digitorum Communis
Extensor Digitorum Quinti Communis
Abductor Digiti Quinti
Hypothenar Eminence
Thenar Eminence
Flexor Communis Digitorum
Extensor Carpi Ulnaris
Flexor Carpi Ulnaris
Flexor Profundis Digitorum


Pads

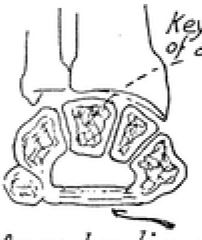

3 Pads
Ligaments of Finger Joints


Hinge Joint
Ball Joint

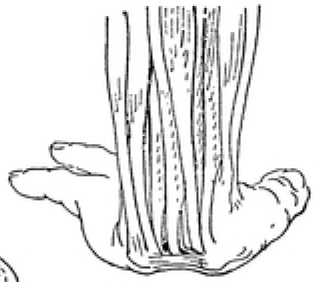

Extensor of Index
Extensor Digitorum Communis
First Interosseus
Extensor Carpi Radialis brevis
Extensor Carpi Radialis Longus
Flexor Profundis Digitorum
1st Lubrical Muscle
Flexor Sublimis Digitorum
Supinator Longus
Flexor Carpi Radialis
Abductor Pollicis Longus
Extensor Pollicis Longus
Extensor Pollicis Brevis
Abductor Pollicis Brevis
Adductor Pollicis Transverse Head
Adductor Pollicis Oblique Head



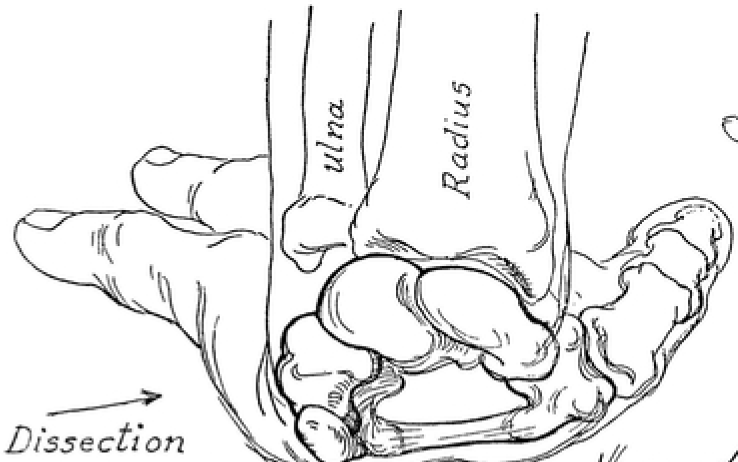
Back view of wrist



Annular ligament. Sectional view of wrist bones

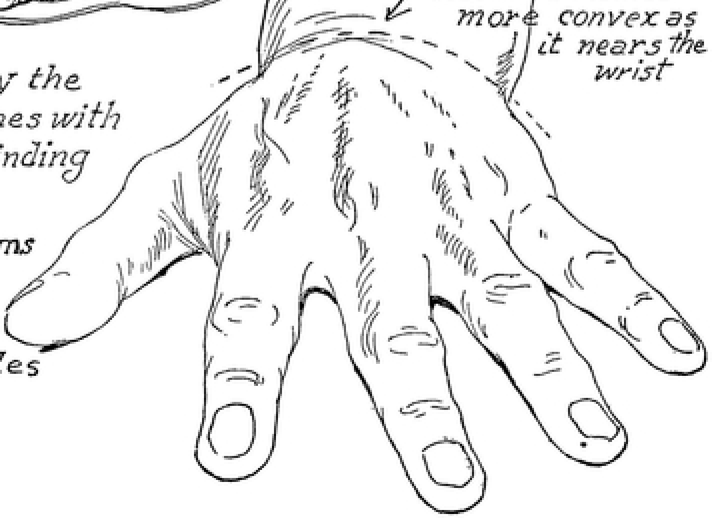


Flexor tendons passing under the arch of the wrist bones.



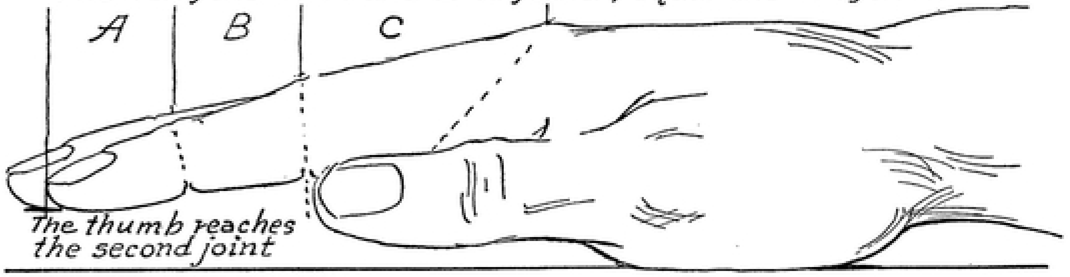
Dissection

The arch formed by the group of wrist bones with the ligament binding the two hook like processes. This forms a canal through which the tendons of the flexor muscles pass.

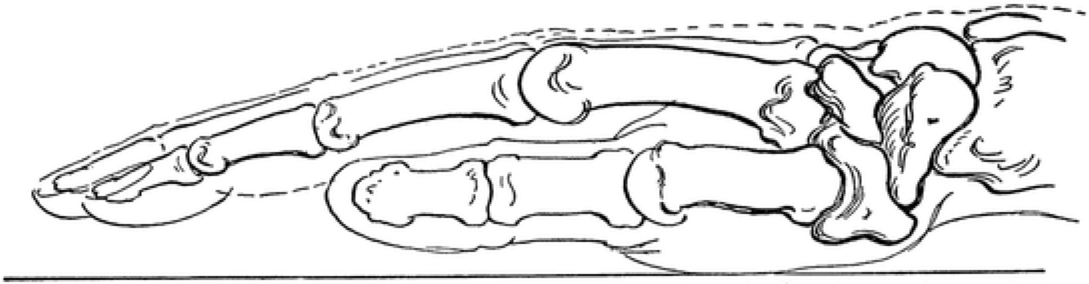


The back of the hand becomes more convex as it nears the wrist

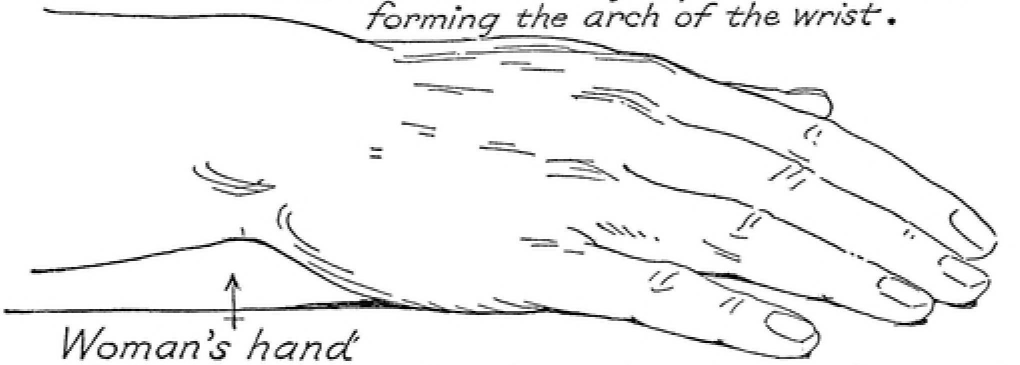
The lengths of A and B together, equal the length of C


A
B
C
The thumb reaches the second joint

When the hand is resting on a flat surface, the wrist does not come in contact with that surface.

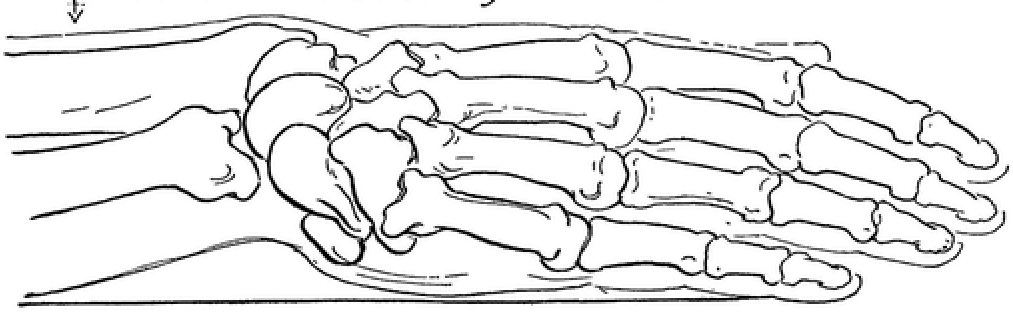


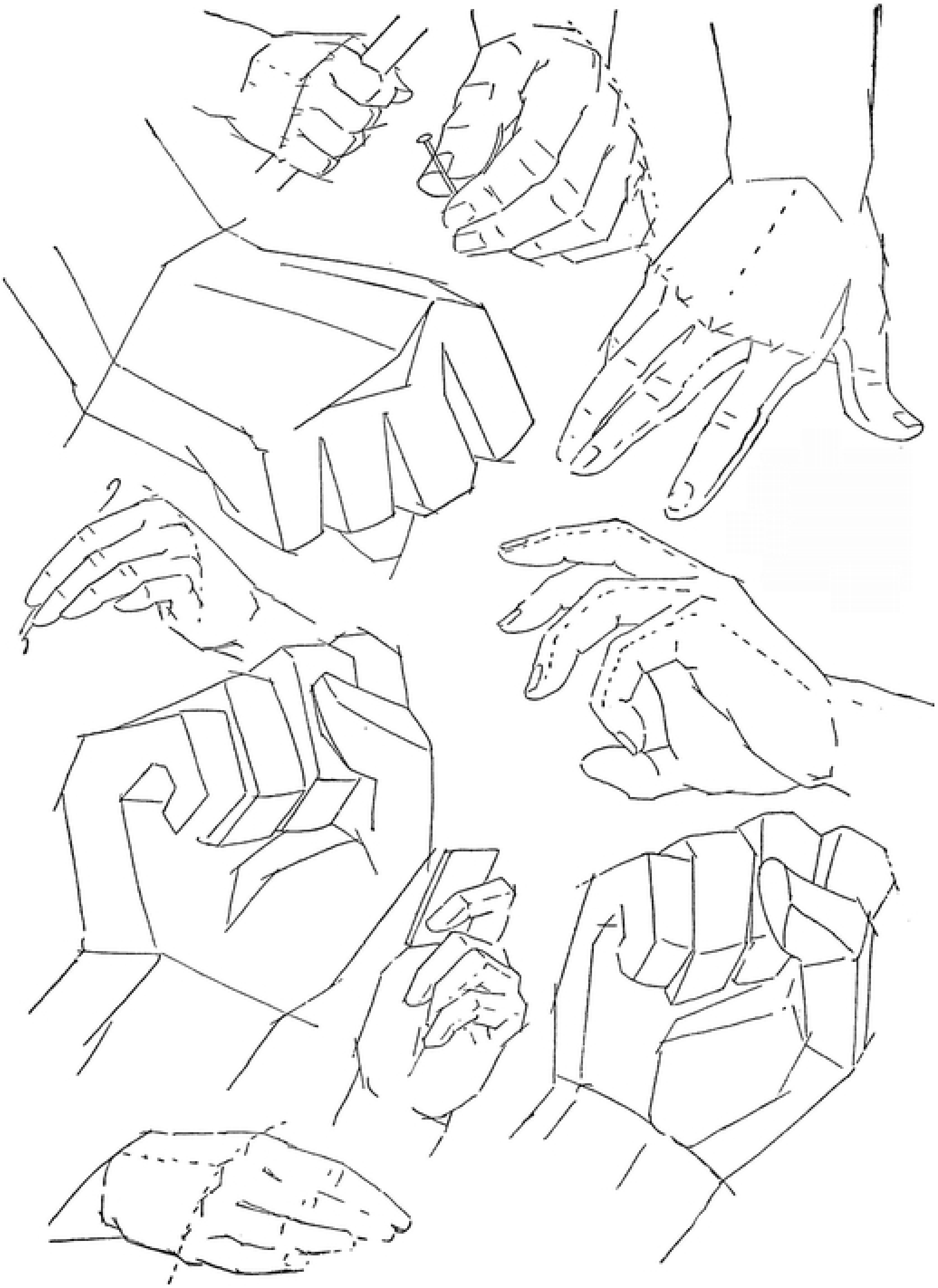
The wrist bones are grouped far into the wrist forming the arch of the wrist.



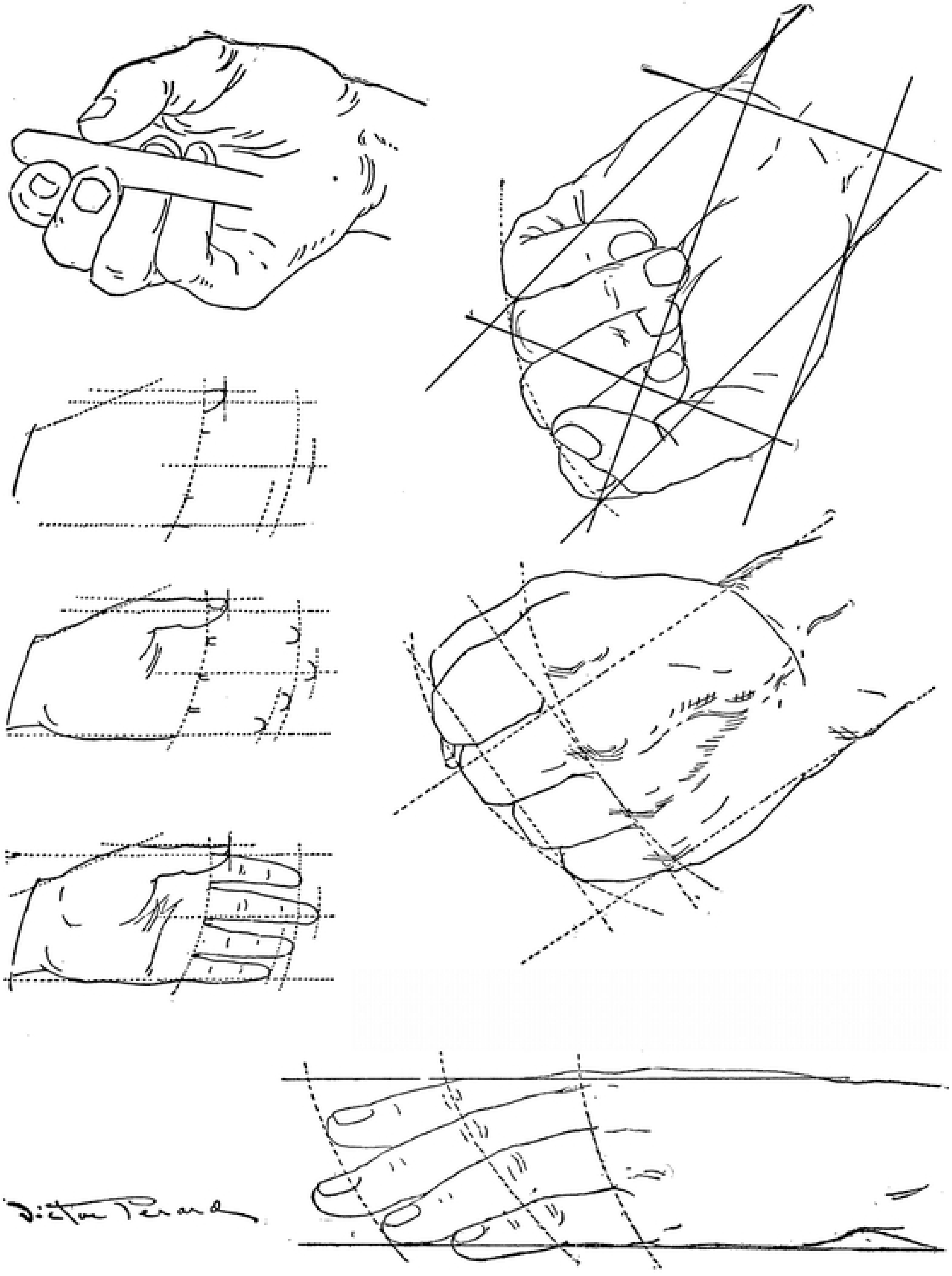
Woman's hand

Relative positions of the bones from the little finger side when the hand is resting on a flat surface.

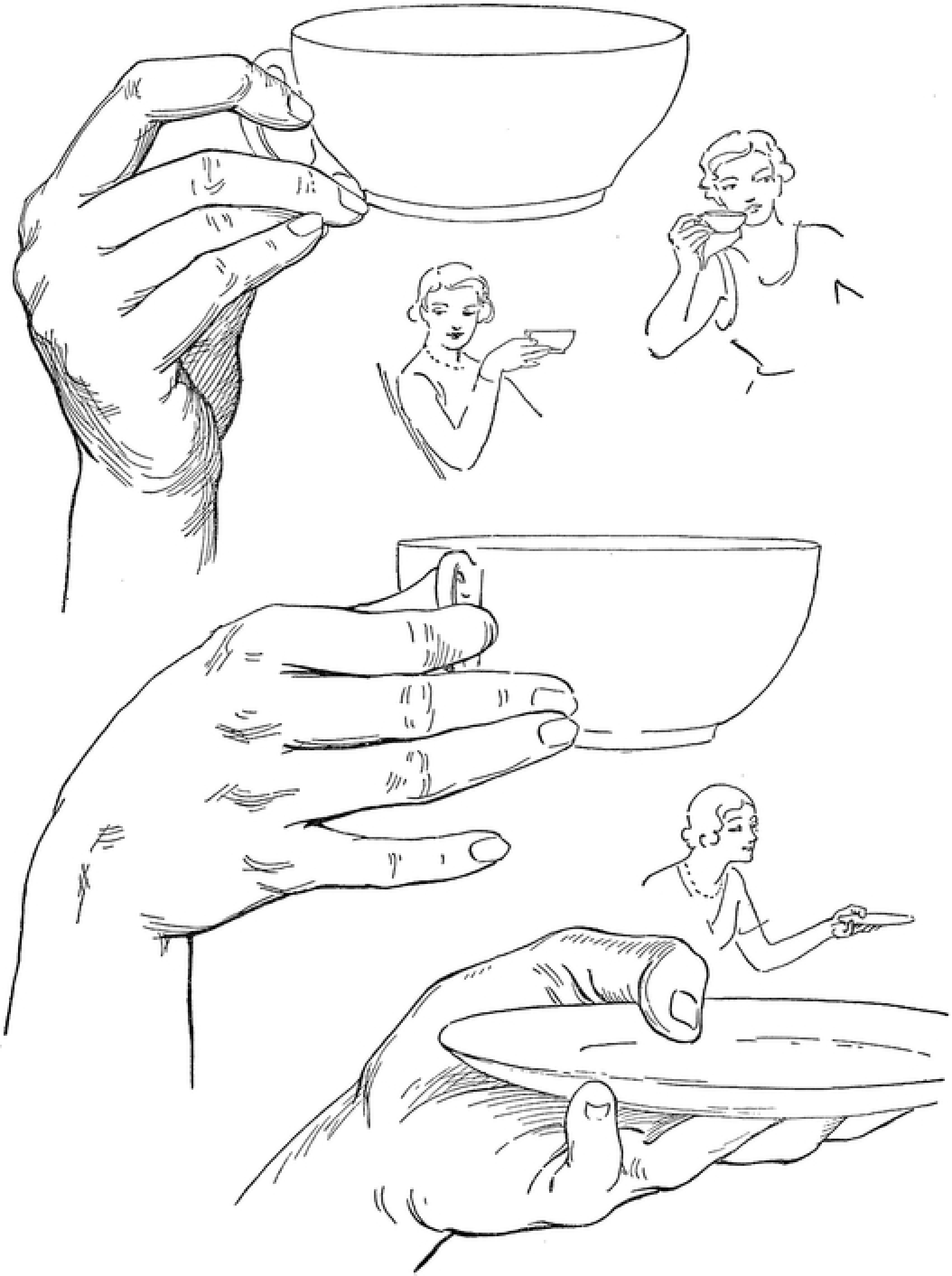


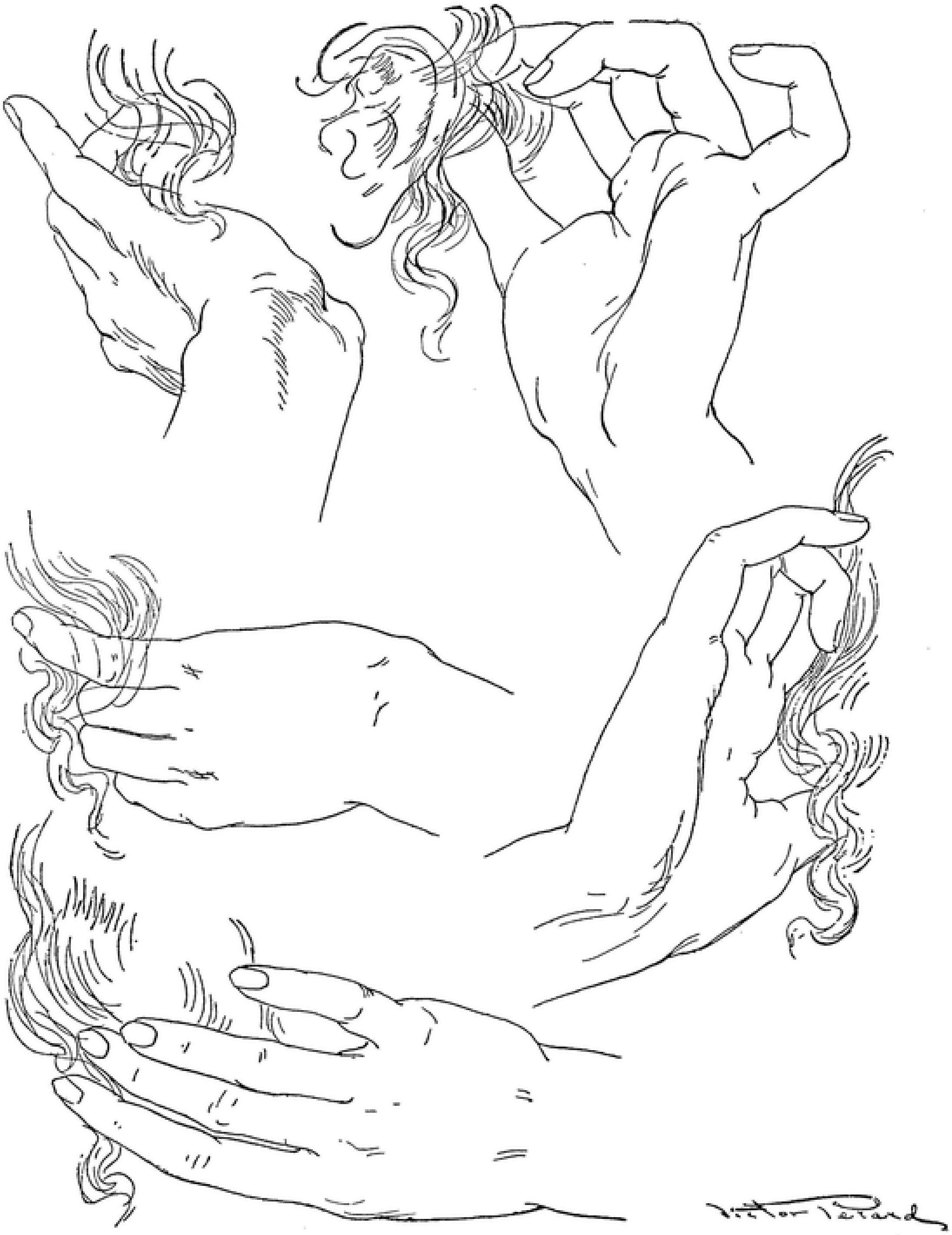


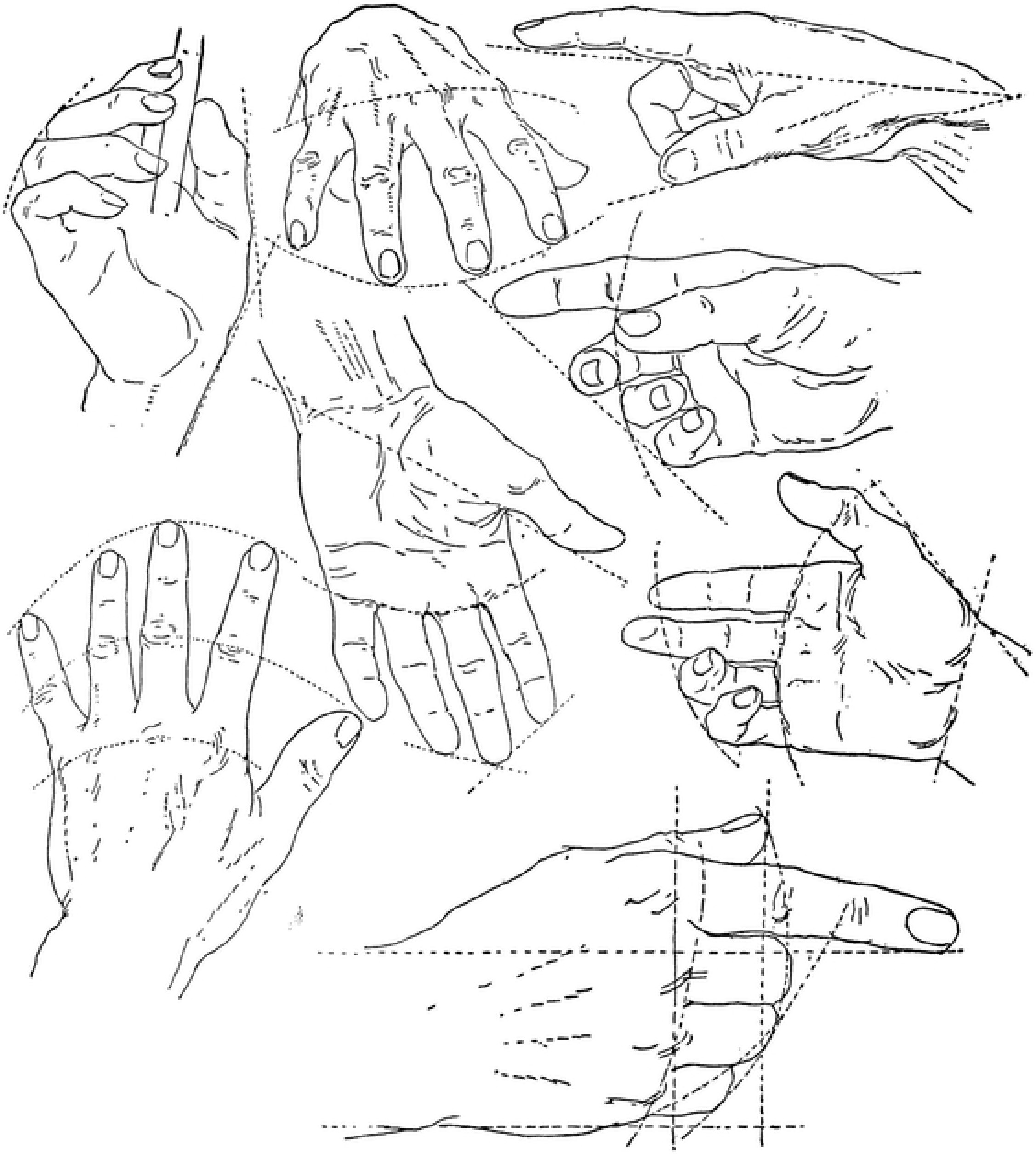
Studies of hands. Method of blocking


Victor Perard

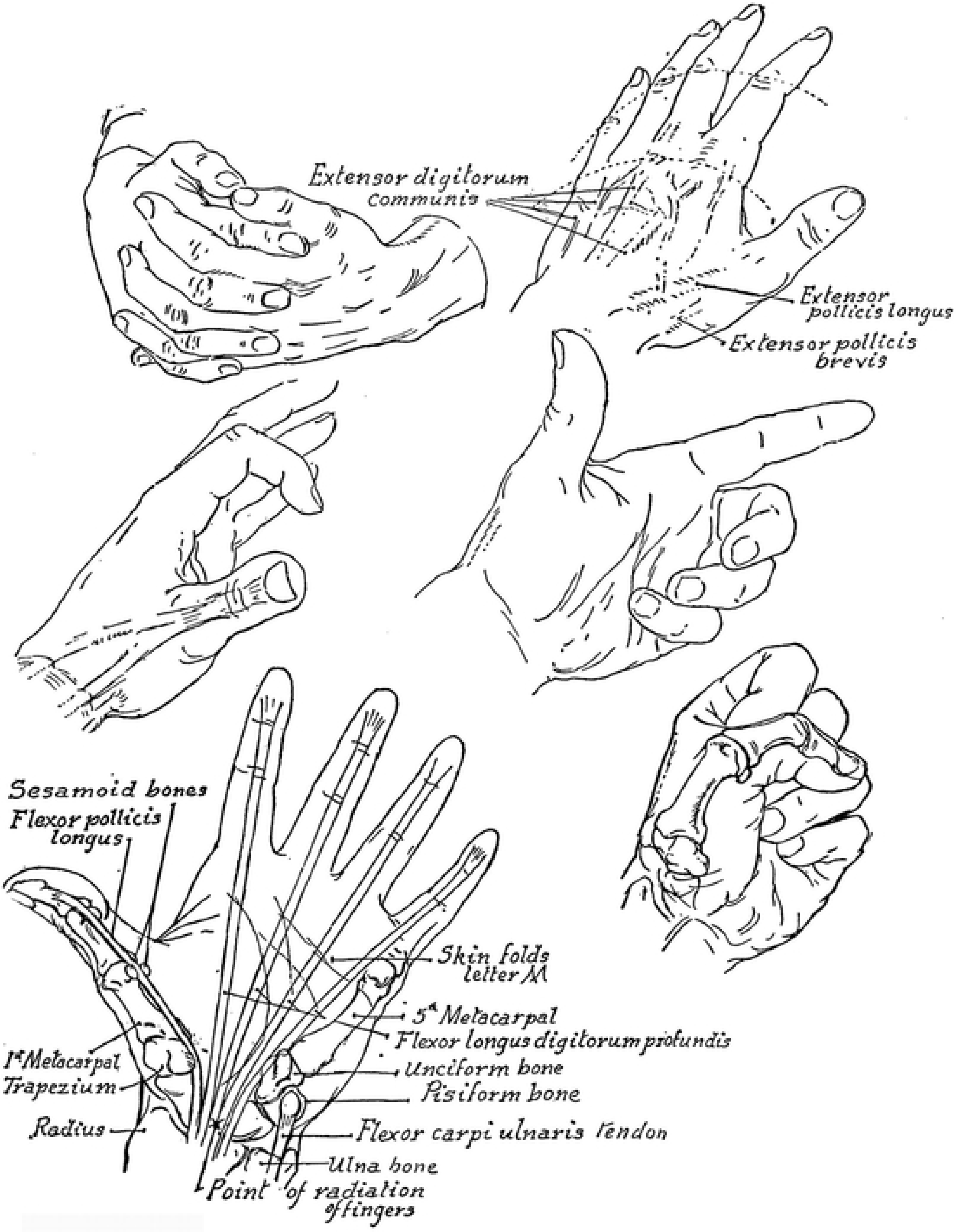
Showing the use of imaginary lines to obtain proportion



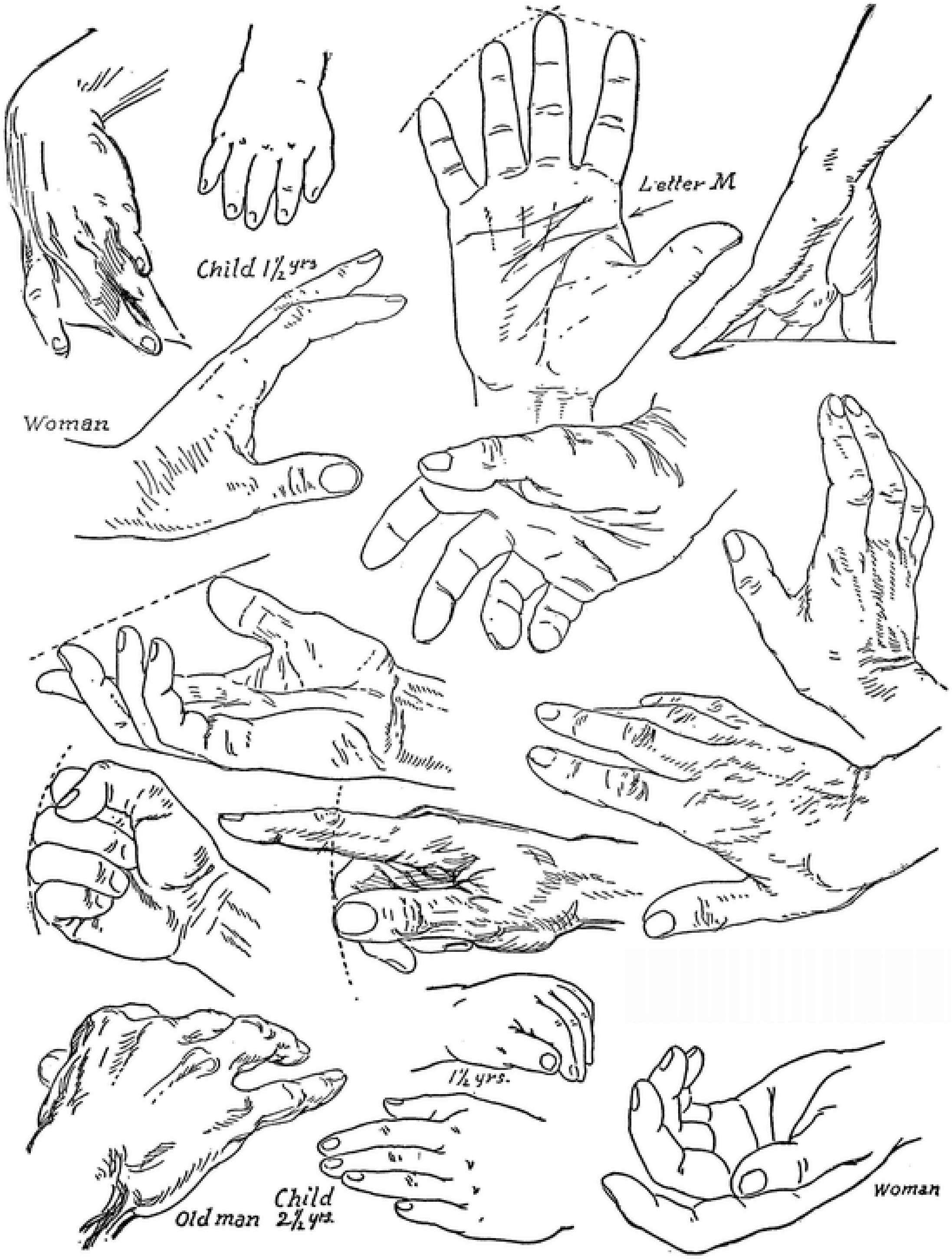

Victor Perard



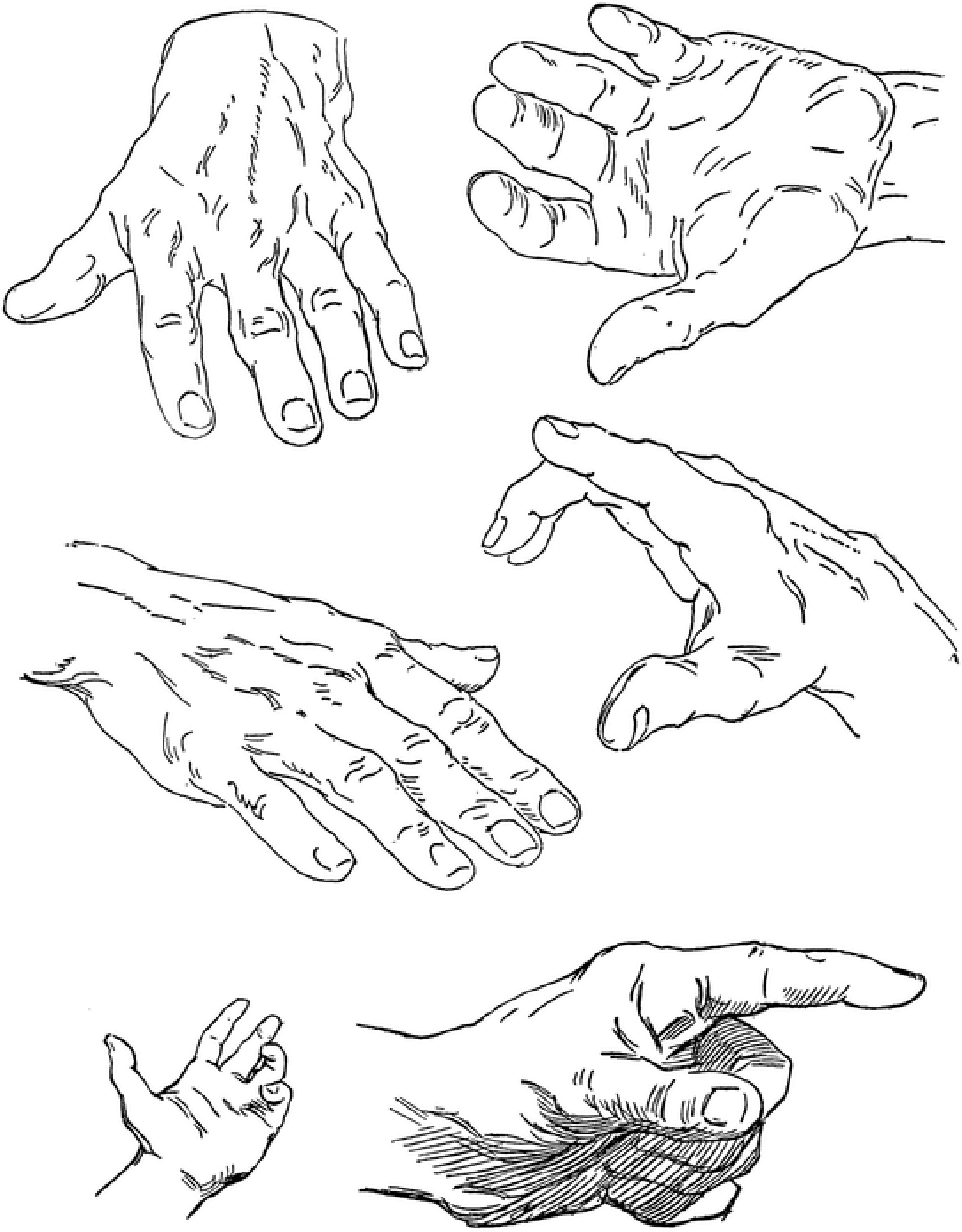
Studies of hands with use of imaginary lines for proportion

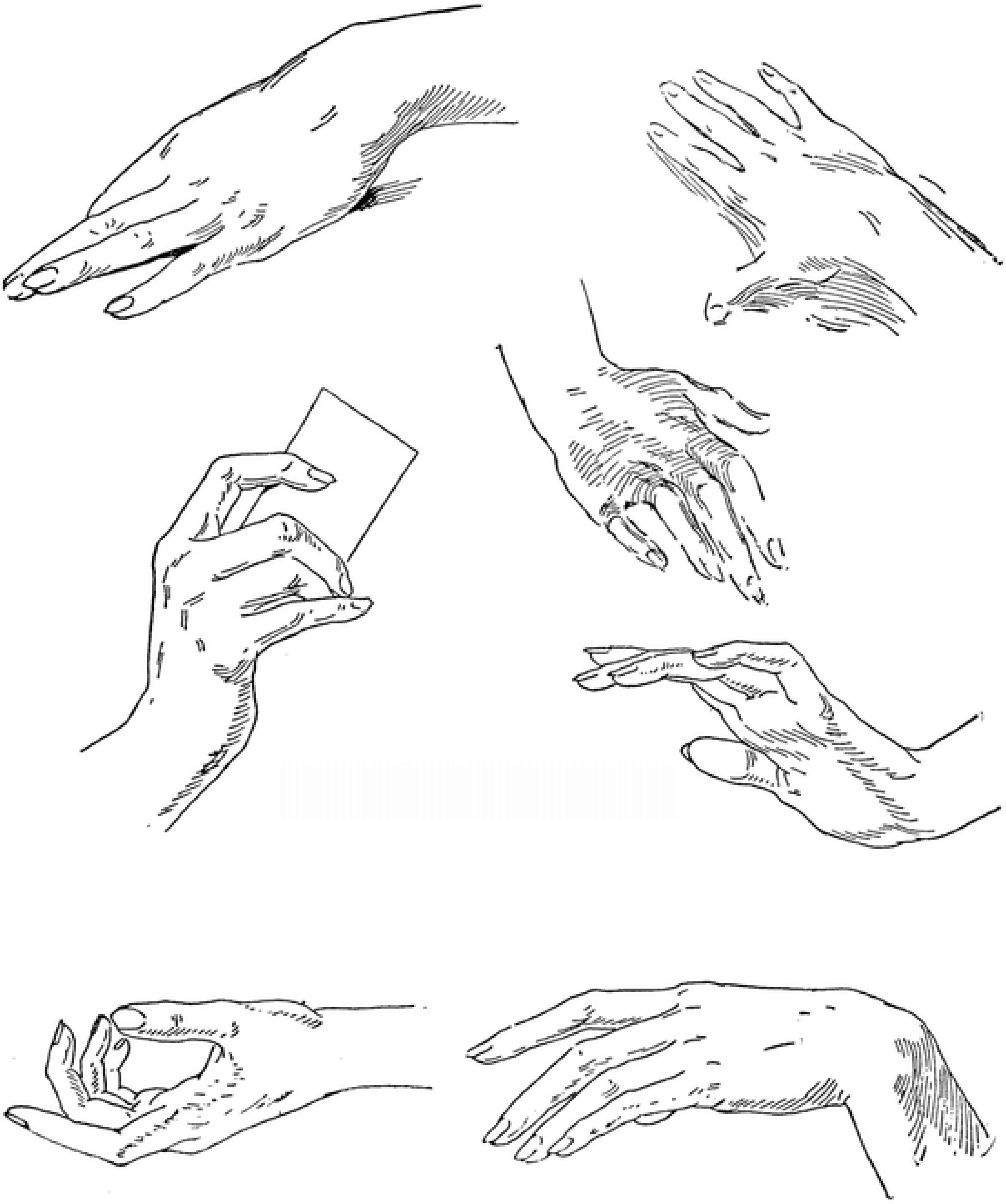

Extensor digitorum communis
Extensor pollicis longus
Extensor pollicis brevis
Sesamoid bones
Flexor pollicis longus
Skin folds letter M
5th Metacarpal
Flexor longus digitorum profundis
1st Metacarpal
Trapezium
Radius
Unciform bone
Pisiform bone
Flexor carpi ulnaris tendon
Ulna bone
Point of radiation of fingers

Palm view

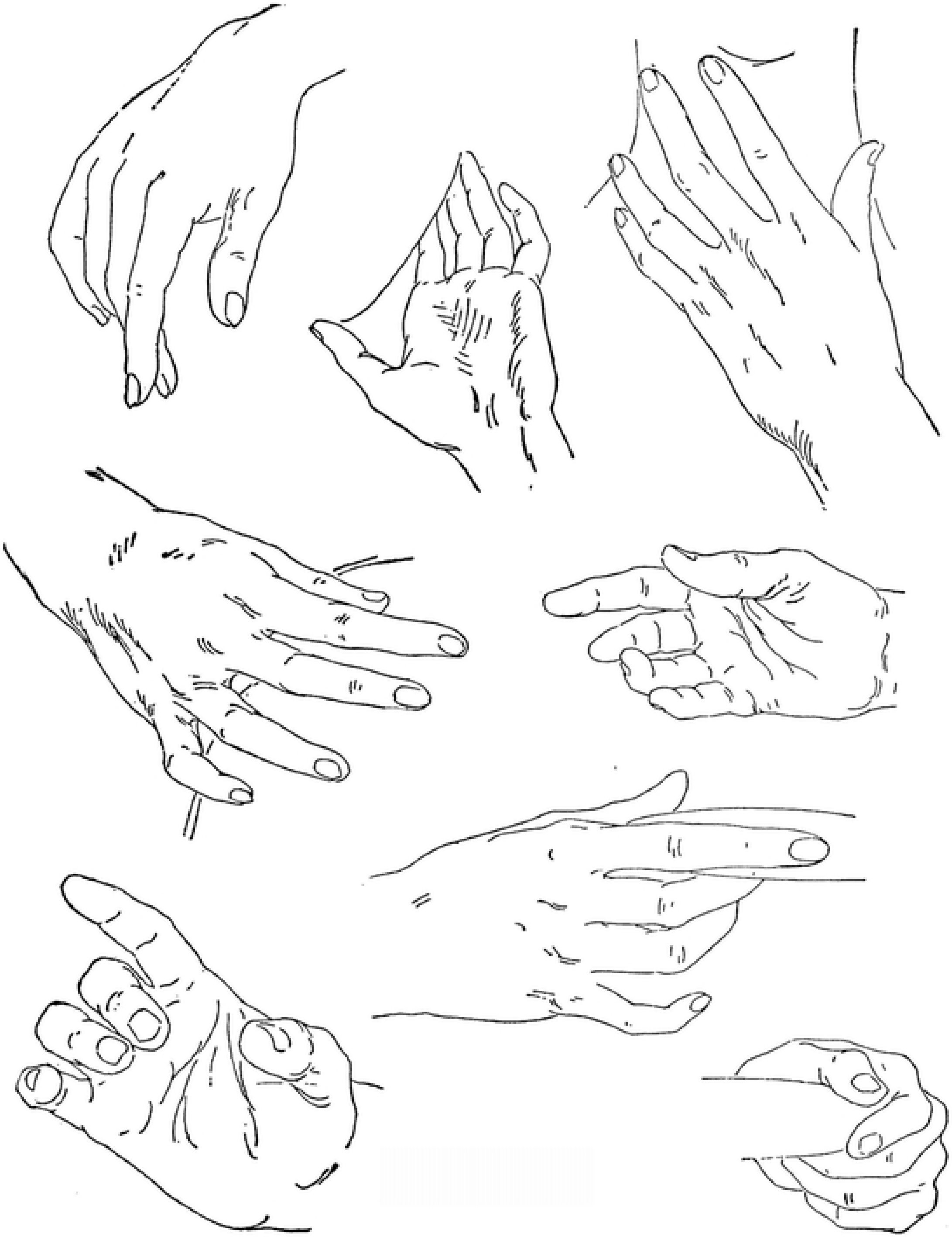

Child 1½ yrs
Letter M
Woman
1½ yrs.
Old man
Child 2½ yrs
Woman

Types of hands

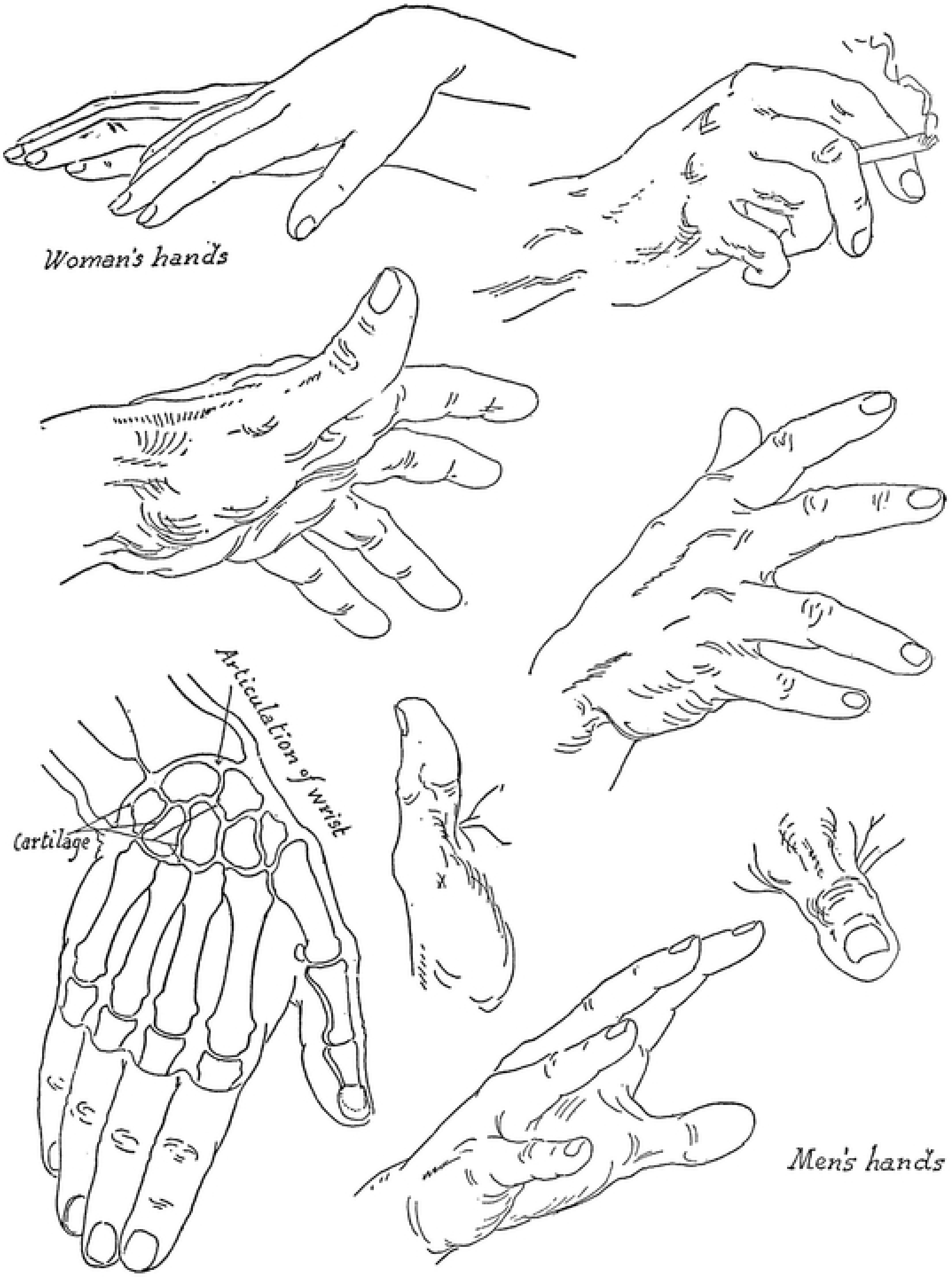




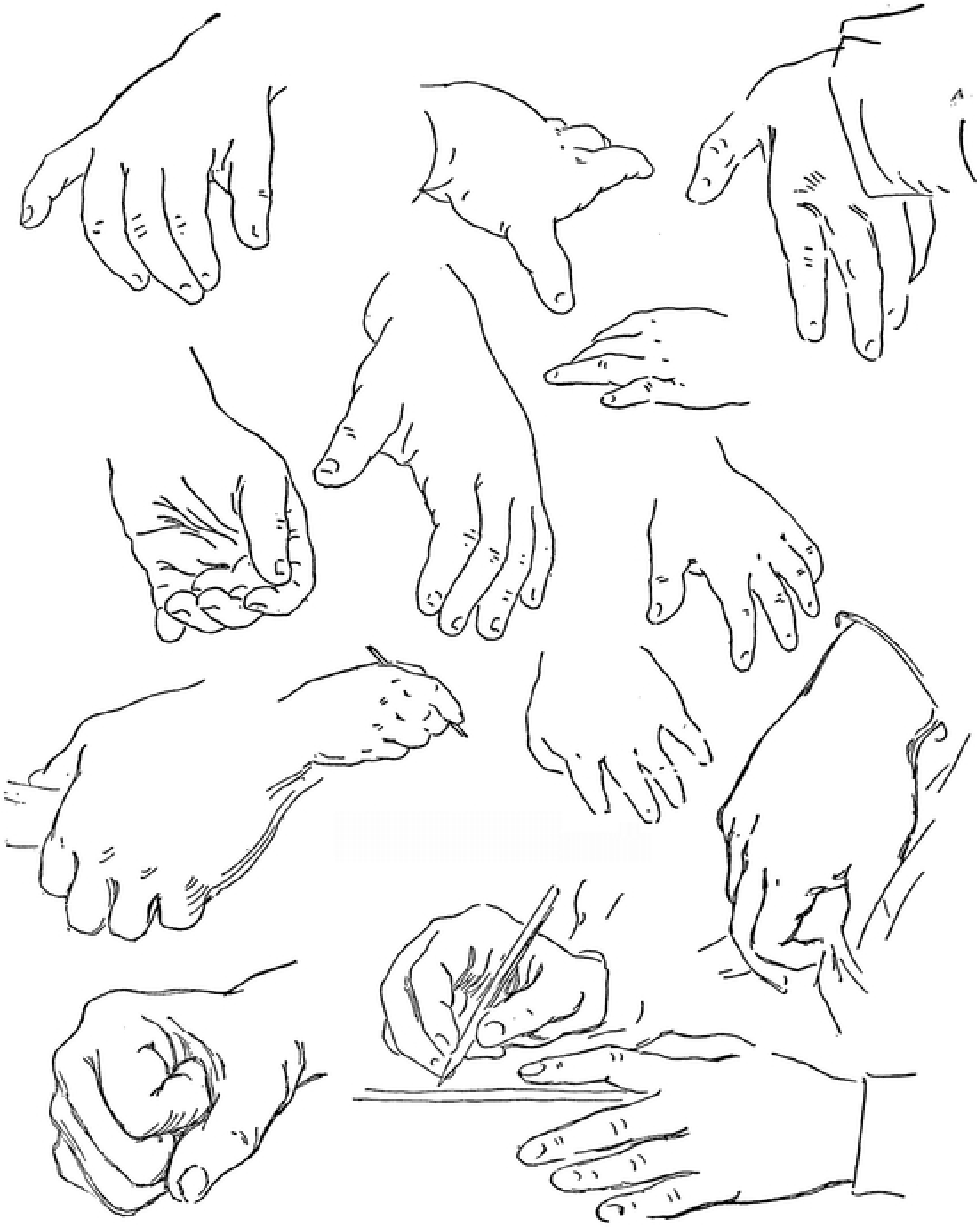
Studies of Women's Hands



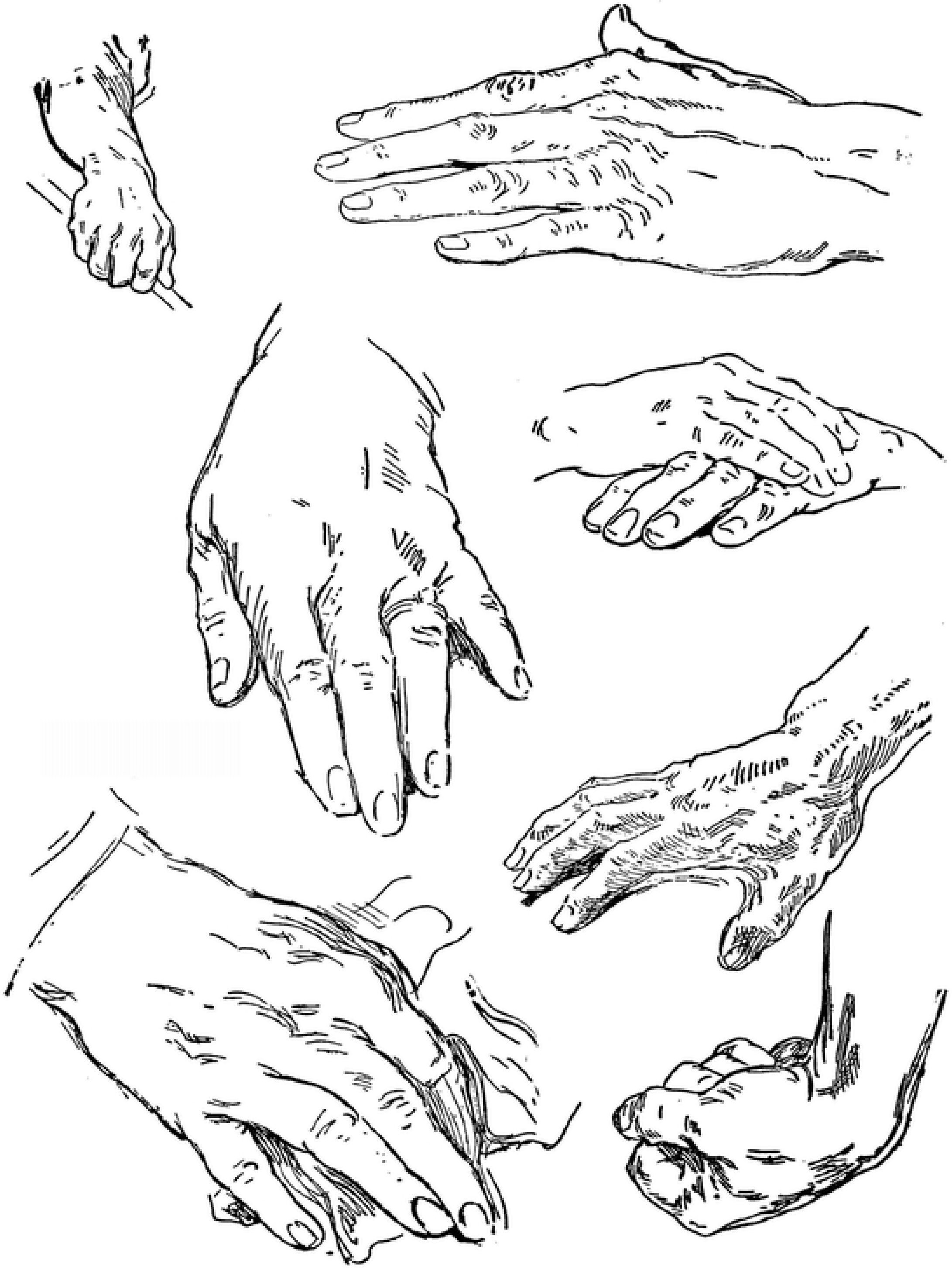
Women’s hands


Woman's hands
Articulation of wrist
Cartilage
Men's hands

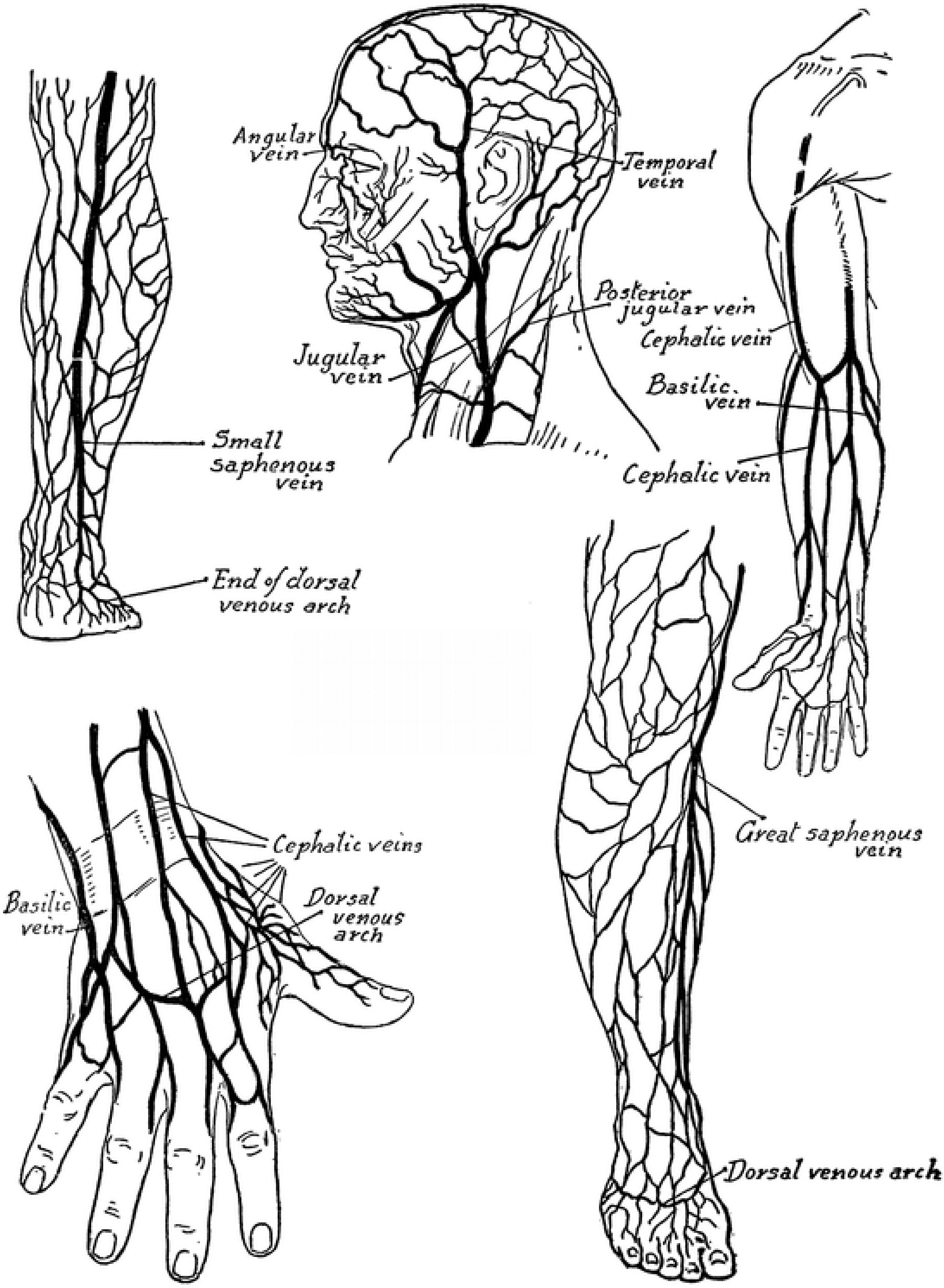
Men’s hands



Children's hands



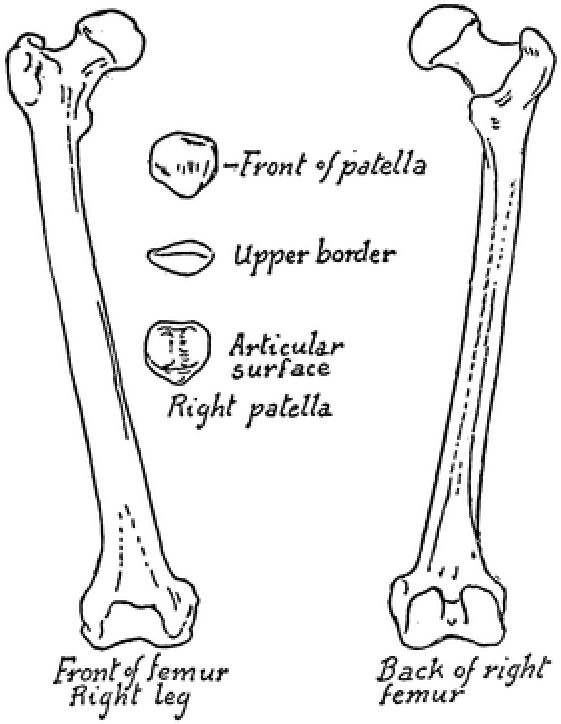
Types of hands

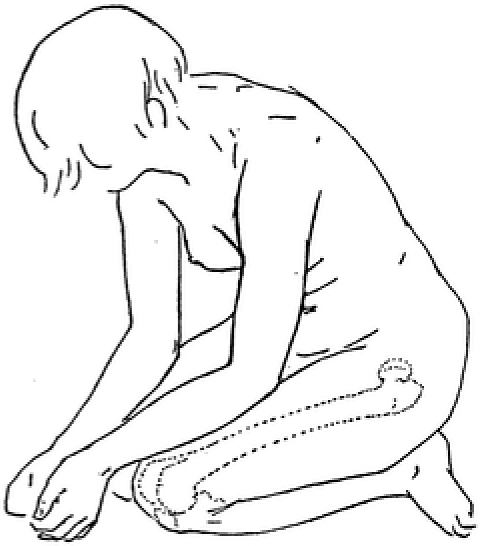

Angular vein
Temporal vein
Posterior jugular vein
Cephalic vein
Jugular vein
Basilic. vein
Small saphenous vein
Cephalic vein
End of dorsal venous arch
Cephalic veins
Dorsal venous arch
Basilic vein
Great saphenous vein
Dorsal venous arch

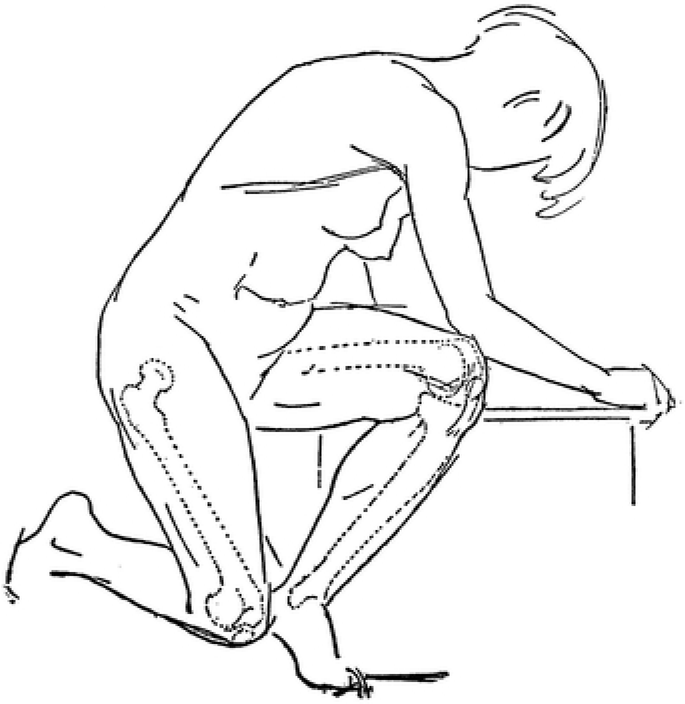
Superficial veins

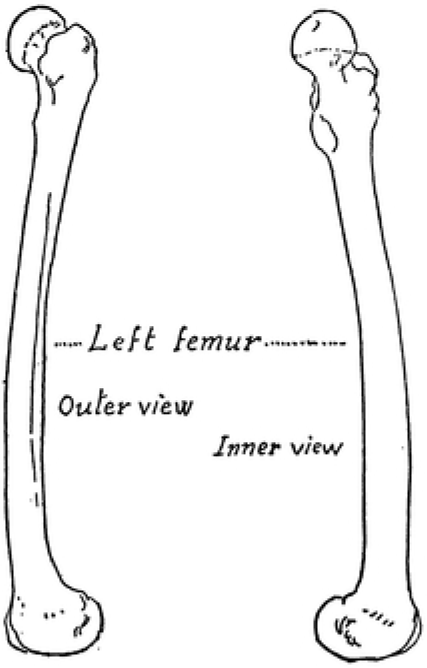
PART SEVEN

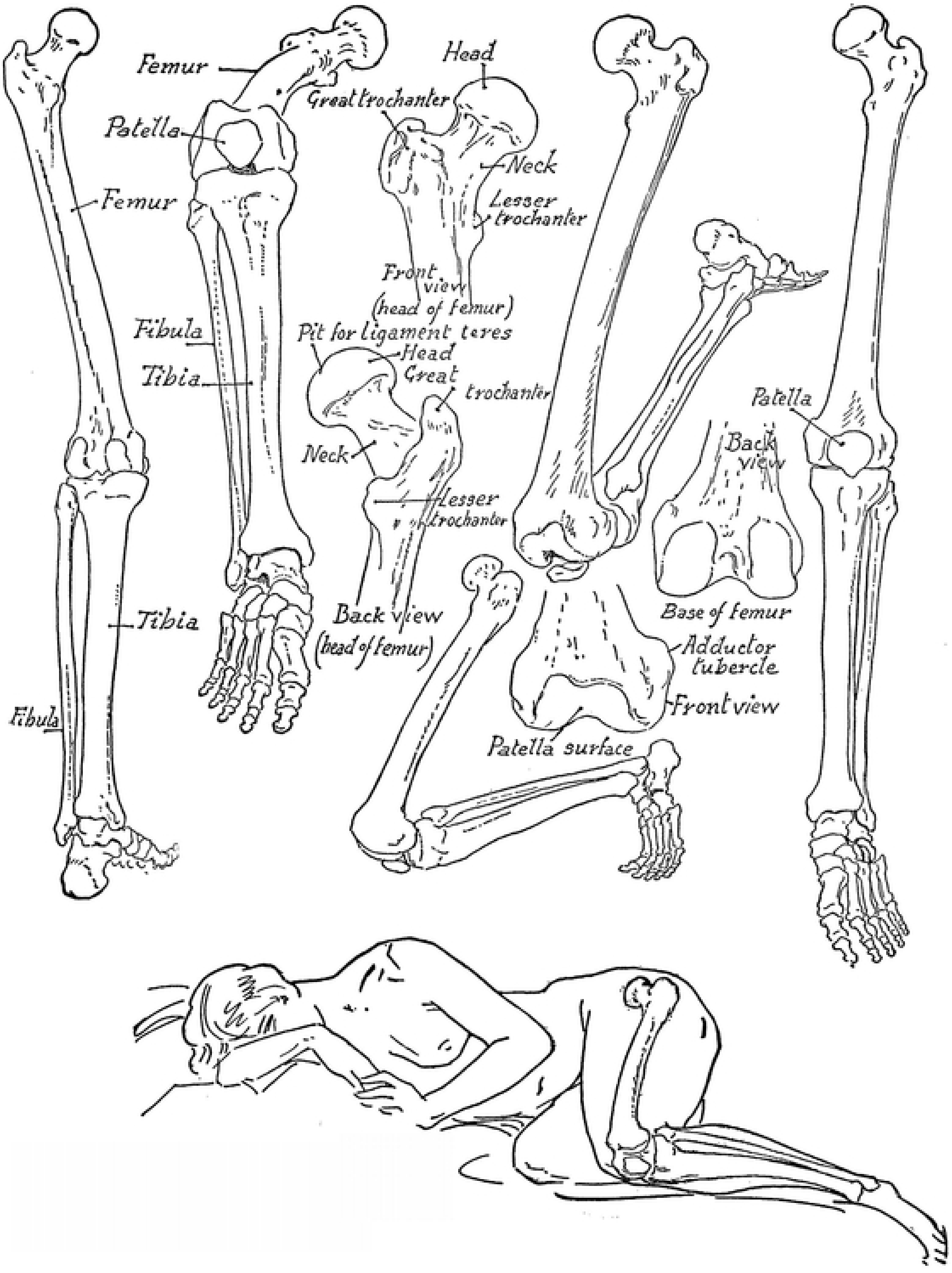
THE LEG


Front of patella
Upper border
Articular surface
Right patella
Front of femur Right leg
Back of right femur

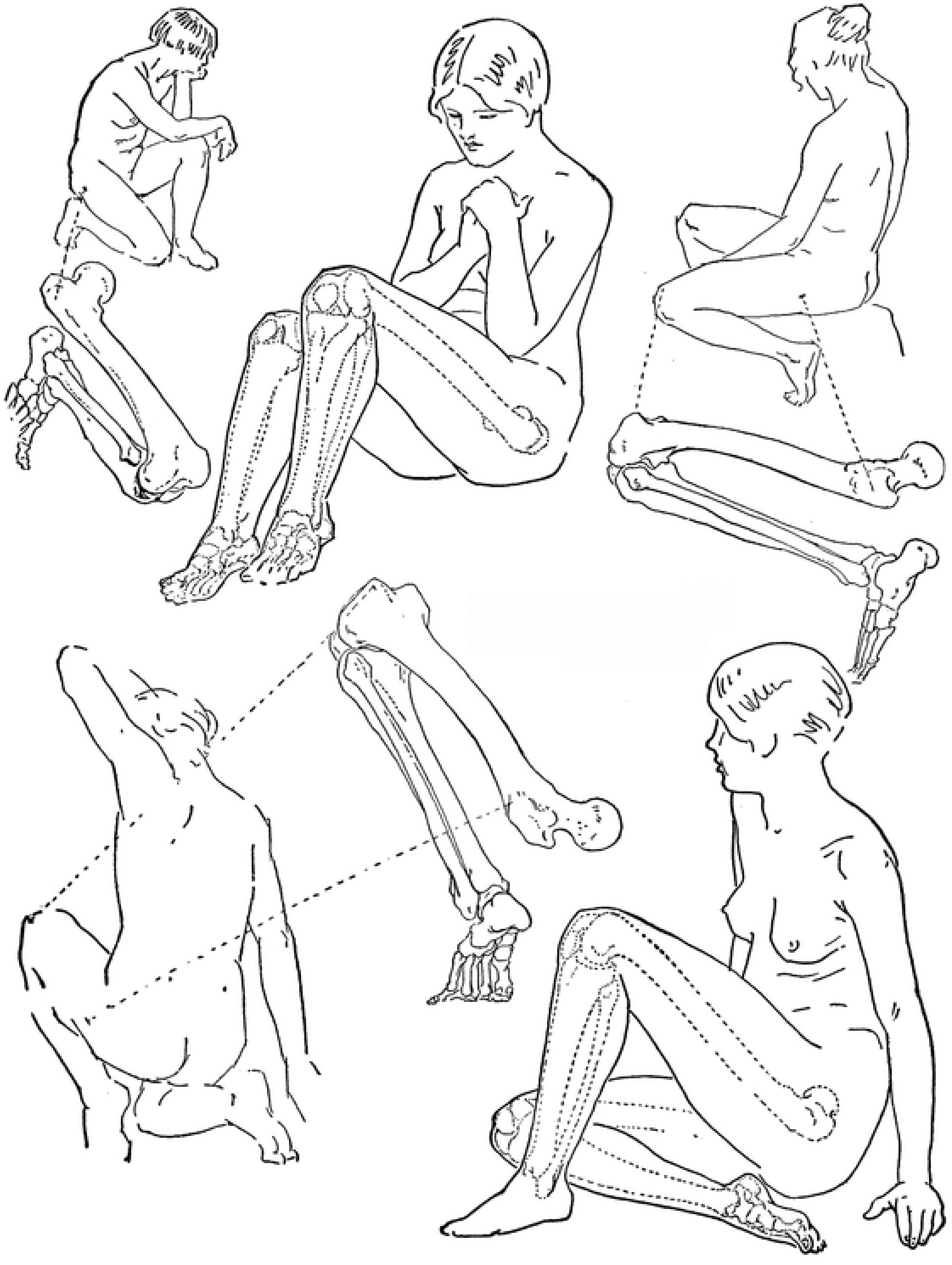




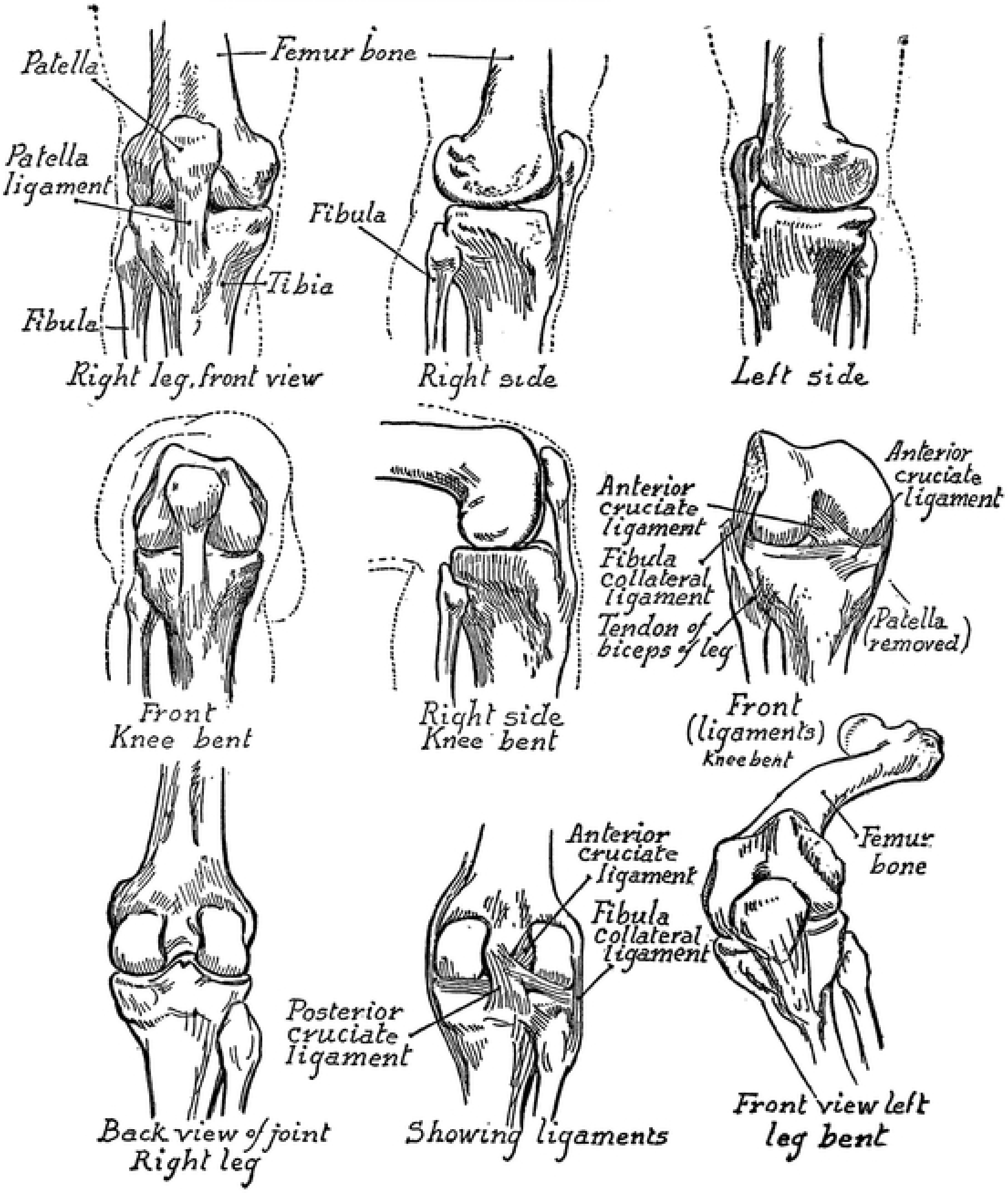

Left femur
Outer view
Inner view


Femur
Patella
Femur
Fibula
Tibia
Tibia
Fibula
Head
Great trochanter
Neck
Lesser trochanter
Front view (head of femur)
Pit for ligament teres
Head
Great trochanter
Neck
Lesser trochanter
Back view (head of femur)
Patella
Back view
Base of femur
Adductor tubercle
Front view
Patella surface

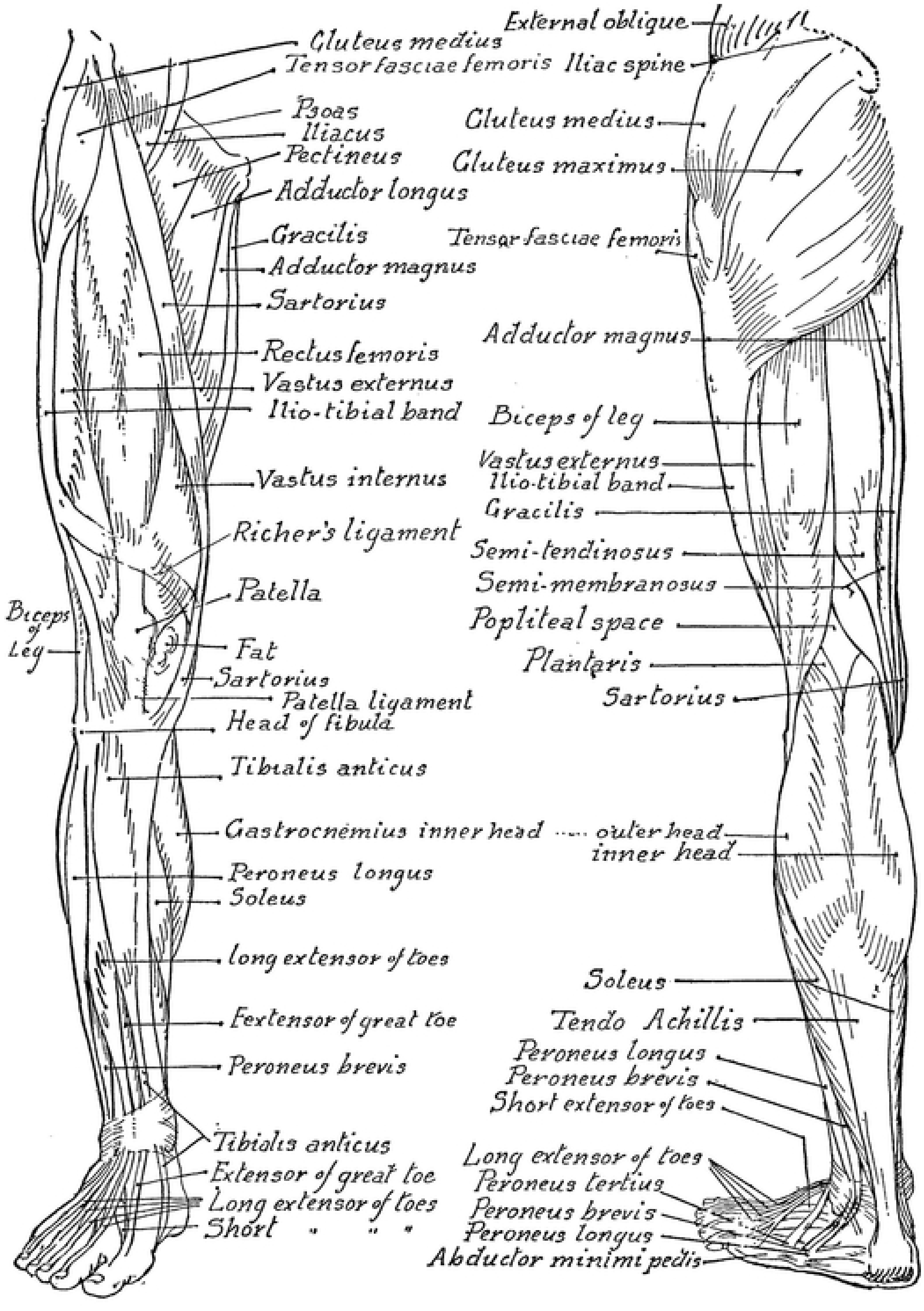
Studies of Leg bones

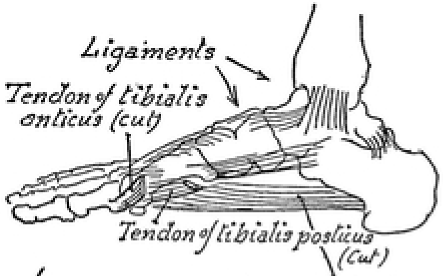


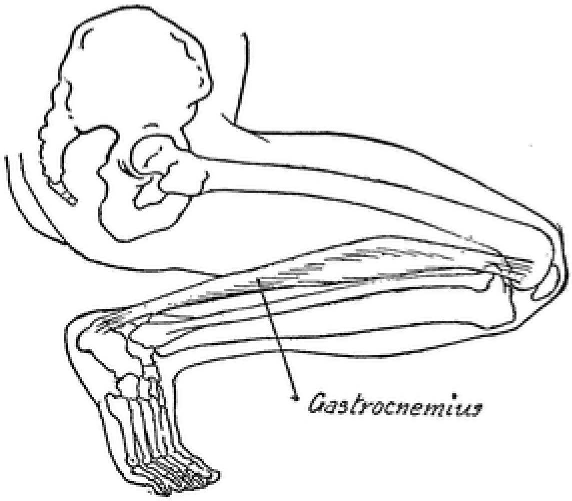
Bones of Leg

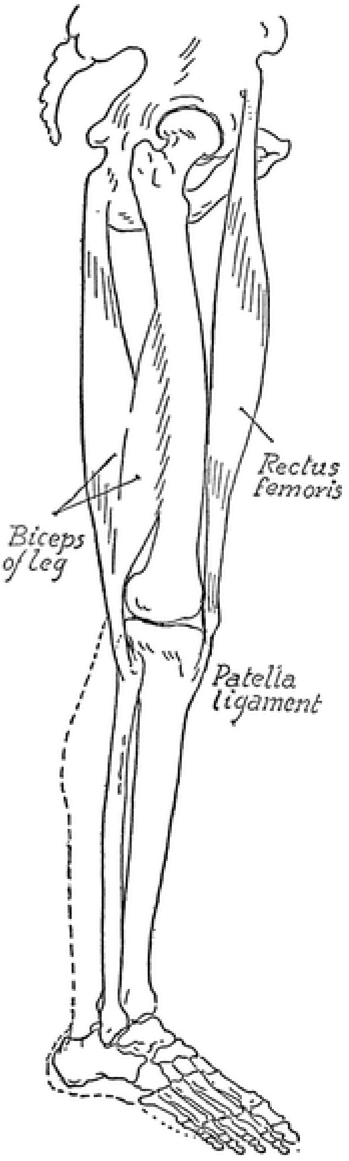

Patella
Femur bone
Patella ligament
Fibula
Tibia
Fibula
Right leg, front view
Right side
Left side
Front
Knee bent
Right side
Knee bent
Anterior cruciate ligament
Fibula collateral ligament
Tendon of biceps of leg
Anterior cruciate ligament
(Patella removed)
Front
(ligaments)
Knee bent
Femur bone
Anterior cruciate ligament
Fibula collateral ligament
Posterior cruciate ligament
Back view of joint
Right leg
Showing ligaments
Front view left
leg bent

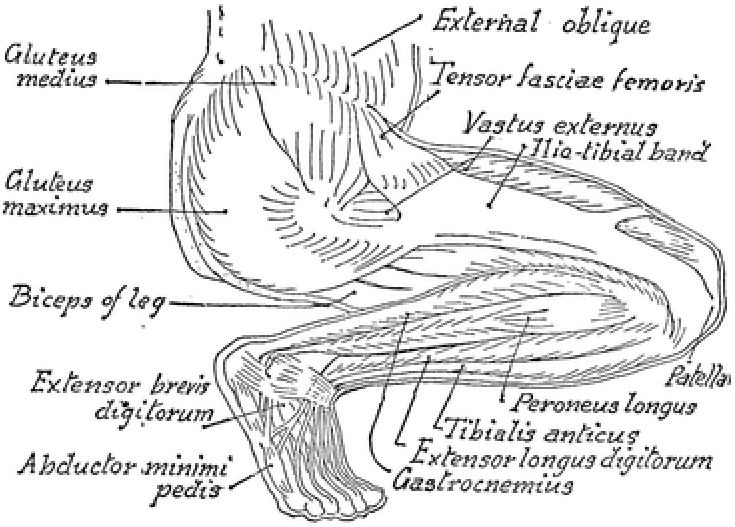
The knee Joint

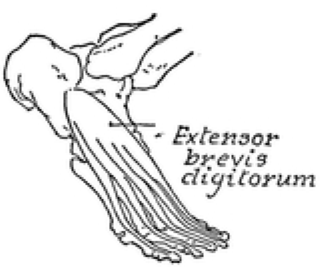

Gluteus medius
Tensor fasciae femoris
Psoas
Iliacus
Pectineus
Adductor longus
Gracilis
Adductor magnus
Sartorius
Rectus femoris
Vastus externus
Ilio-tibial band
Vastus internus
Richer's ligament
Patella
Biceps of Leg
Fat
Sartorius
Patella ligament
Head of fibula
Tibialis anticus
Gastrocnemius inner head
Peroneus longus
Soleus
long extensor of toes
Fextensor of great toe
Peroneus brevis
Tibialis anticus
Extensor of great toe
Long extensor of toes
Short " " "
External oblique
Iliac spine
Gluteus medius
Gluteus maximus
Tensor fasciae femoris
Adductor magnus
Biceps of leg
Vastus externus
Ilio-tibial band
Gracilis
Semi-tendinosus
Semi-membranosus
Popliteal space
Plantaris
Sartorius
..... outer head
inner head
Soleus
Tendo Achillis
Peroneus longus
Peroneus brevis
Short extensor of toes
Long extensor of toes
Peroneus tertius
Peroneus brevis
Peroneus longus
Abductor minimi pedis

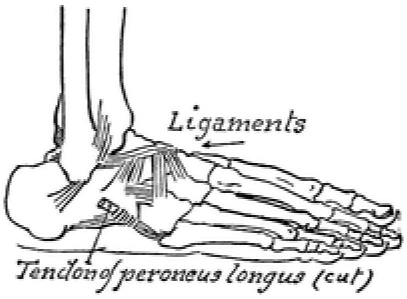

Ligaments
Tendon of tibialis anticus (cut)
Tendon of tibialis posticus (cut)
plantar ligament

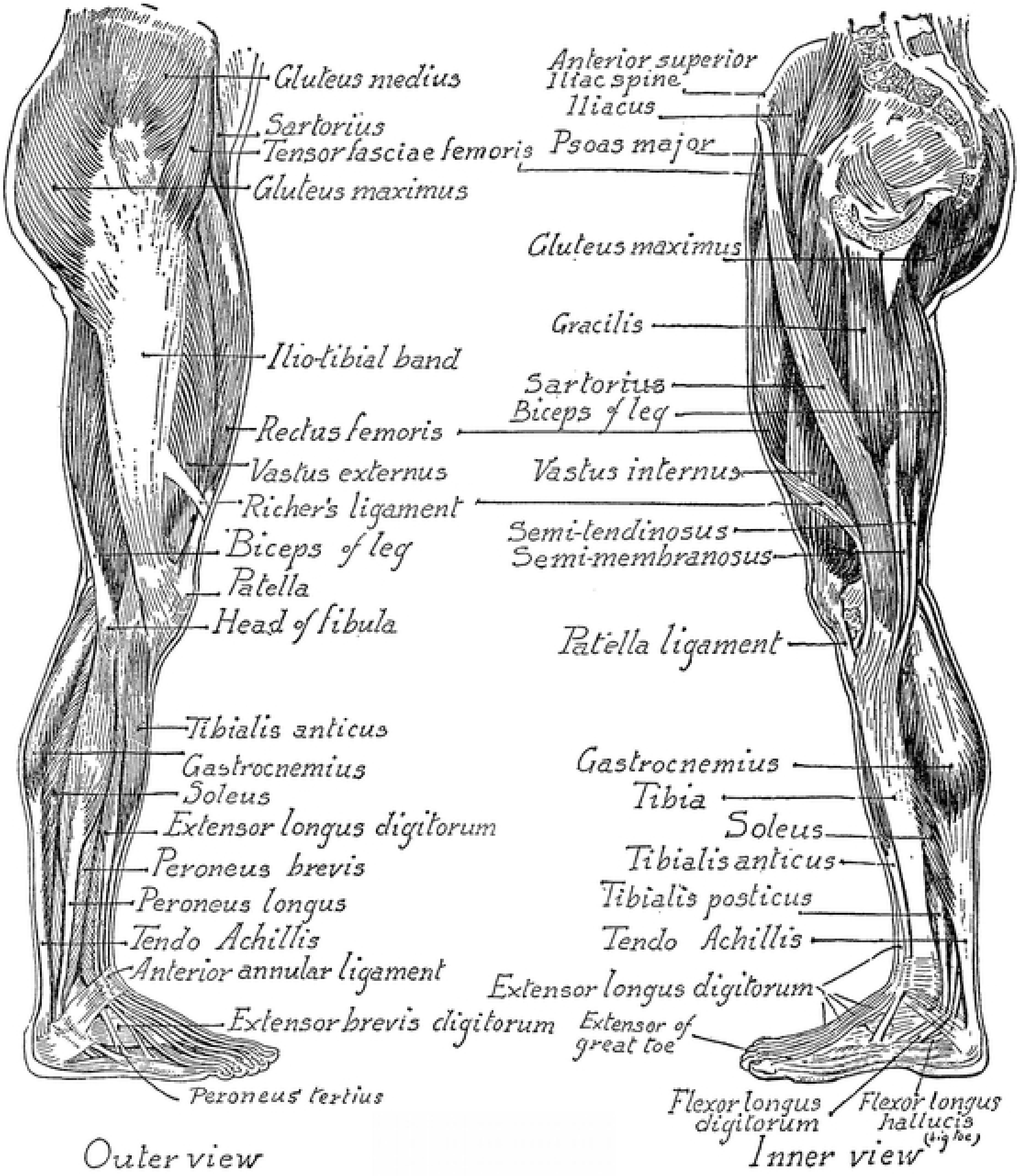

Gastrocnemius


Rectus femoris
Biceps of leg
Patella ligament

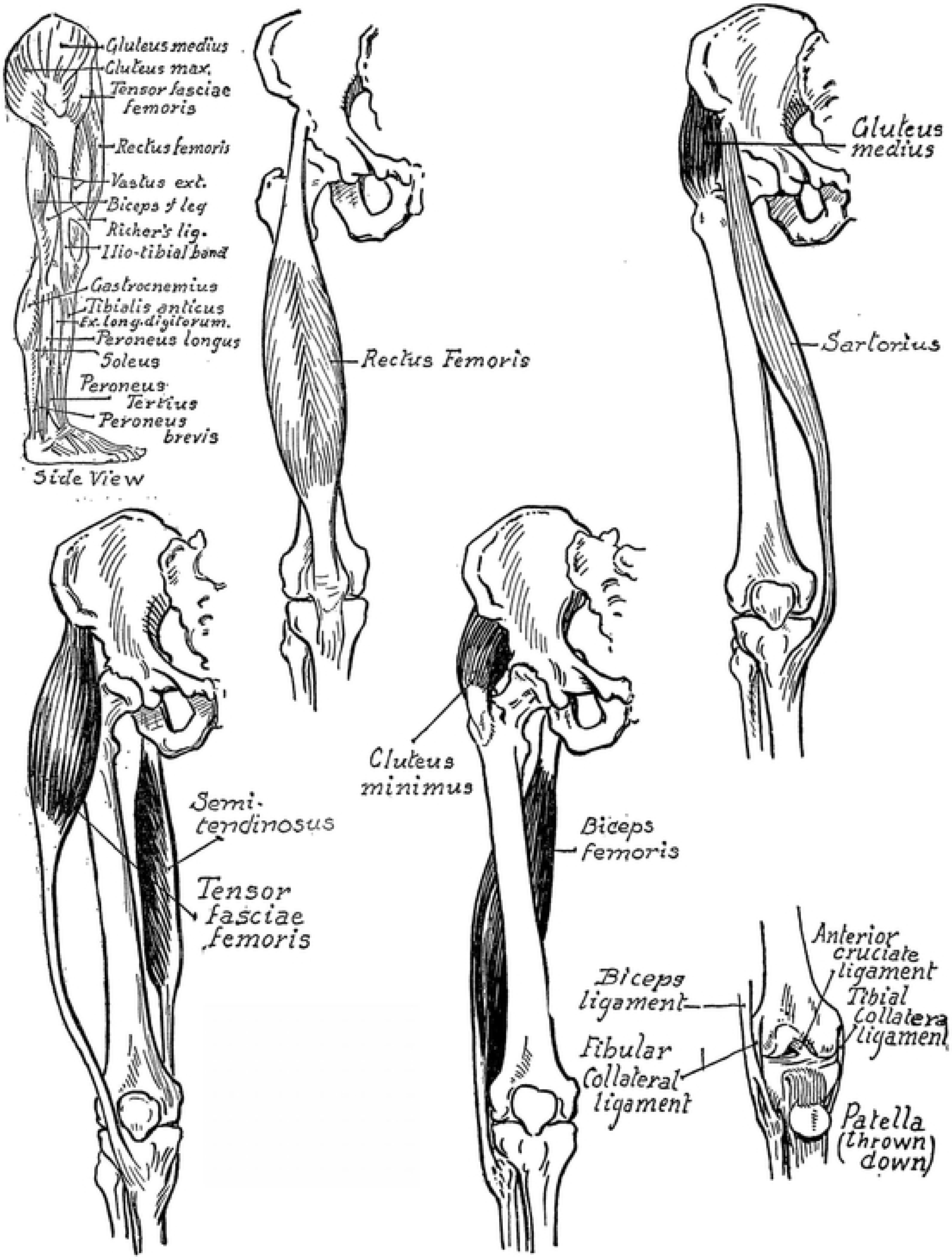

External oblique
Gluteus medius
Tensor fasciae femoris
Vastus externus
Ilio-tibial band
Gluteus maximus
Biceps of leg
Patella
Extensor brevis digitorum
Peroneus longus
Tibialis anticus
Abductor minimi pedis
Extensor longus digitorum
Gastrocnemius


Extensor brevis digitorum

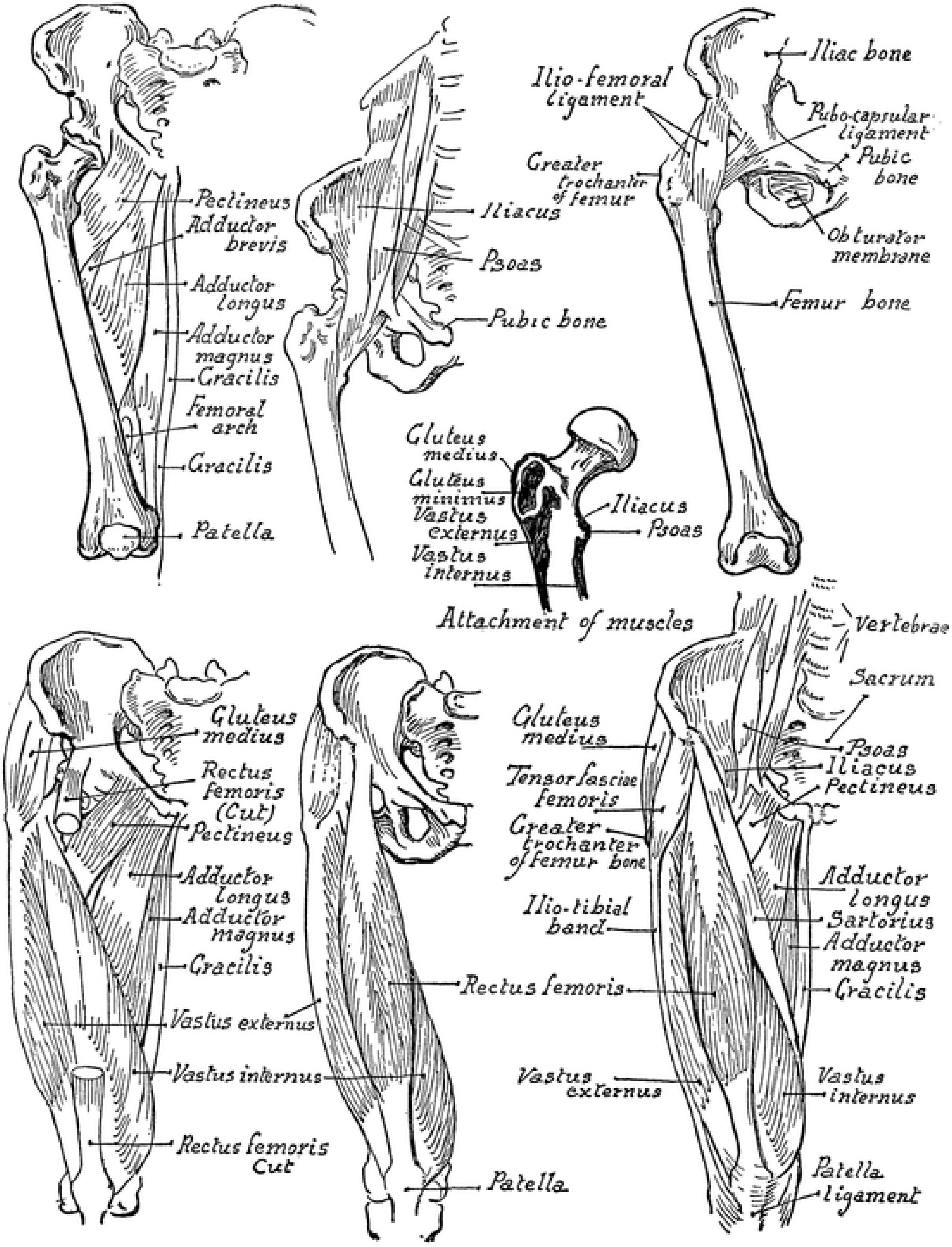

Ligaments
Tendon of peroneus longus (cut)


Gluteus medius
Sartorius
Tensor fasciae femoris
Gluteus maximus
Ilio-tibial band
Rectus femoris
Vastus externus
Richer's ligament
Biceps of leg
Patella
Head of fibula
Tibialis anticus
Gastrocnemius
Soleus
Extensor longus digitorum
Peroneus brevis
Peroneus longus
Tendo Achillis
Anterior annular ligament
Extensor brevis digitorum
Peroneus tertius
Outer view
Anterior superior Iliac spine
Iliacus
Psoas major
Gluteus maximus
Gracilis
Sartorius
Biceps of leg
Vastus internus
Semi-tendinosus
Semi-membranosus
Patella ligament
Gastrocnemius
Tibia
Soleus
Tibialis anticus
Tibialis posticus
Tendo Achillis
Extensor longus digitorum
Extensor of great toe
Flexor longus digitorum
Flexor longus hallucis (big toe)
Inner view

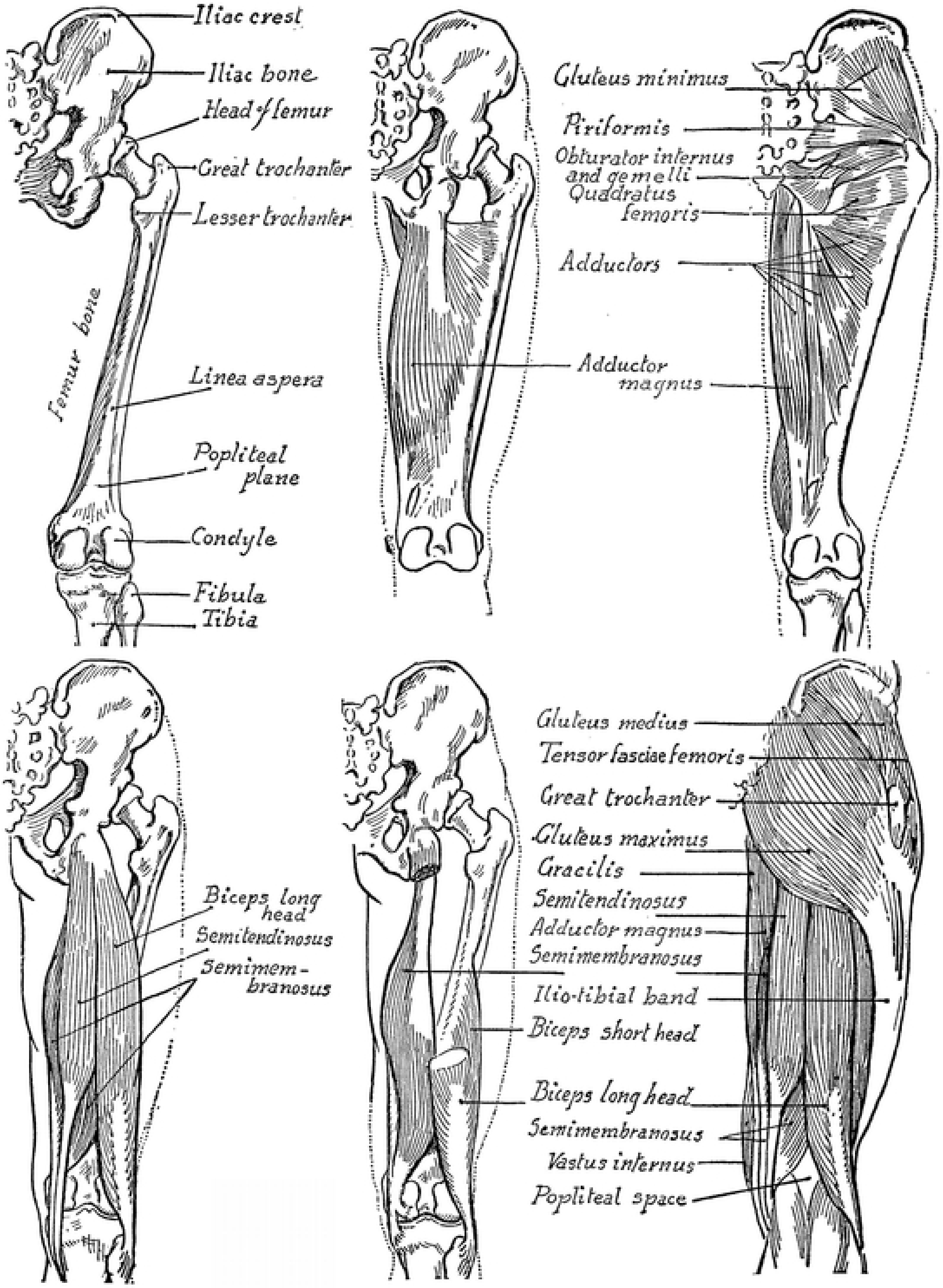
The leg


Gluteus medius
Gluteus max.
Tensor fasciae femoris
Rectus femoris
Vastus ext.
Biceps of leg
Richer's lig.
Ilio-tibial band
Gastrocnemius
Tibialis anticus
Ex. long. digitorum.
Peroneus longus
Soleus
Peroneus Tertius
Peroneus brevis
Side View
Rectus Femoris
Gluteus medius
Sartorius
Semi-tendinosus
Tensor fasciae femoris
Gluteus minimus
Biceps femoris
Biceps ligament
Fibular Collateral ligament
Anterior cruciate ligament
Tibial Collatera ligament
Patella (thrown down)

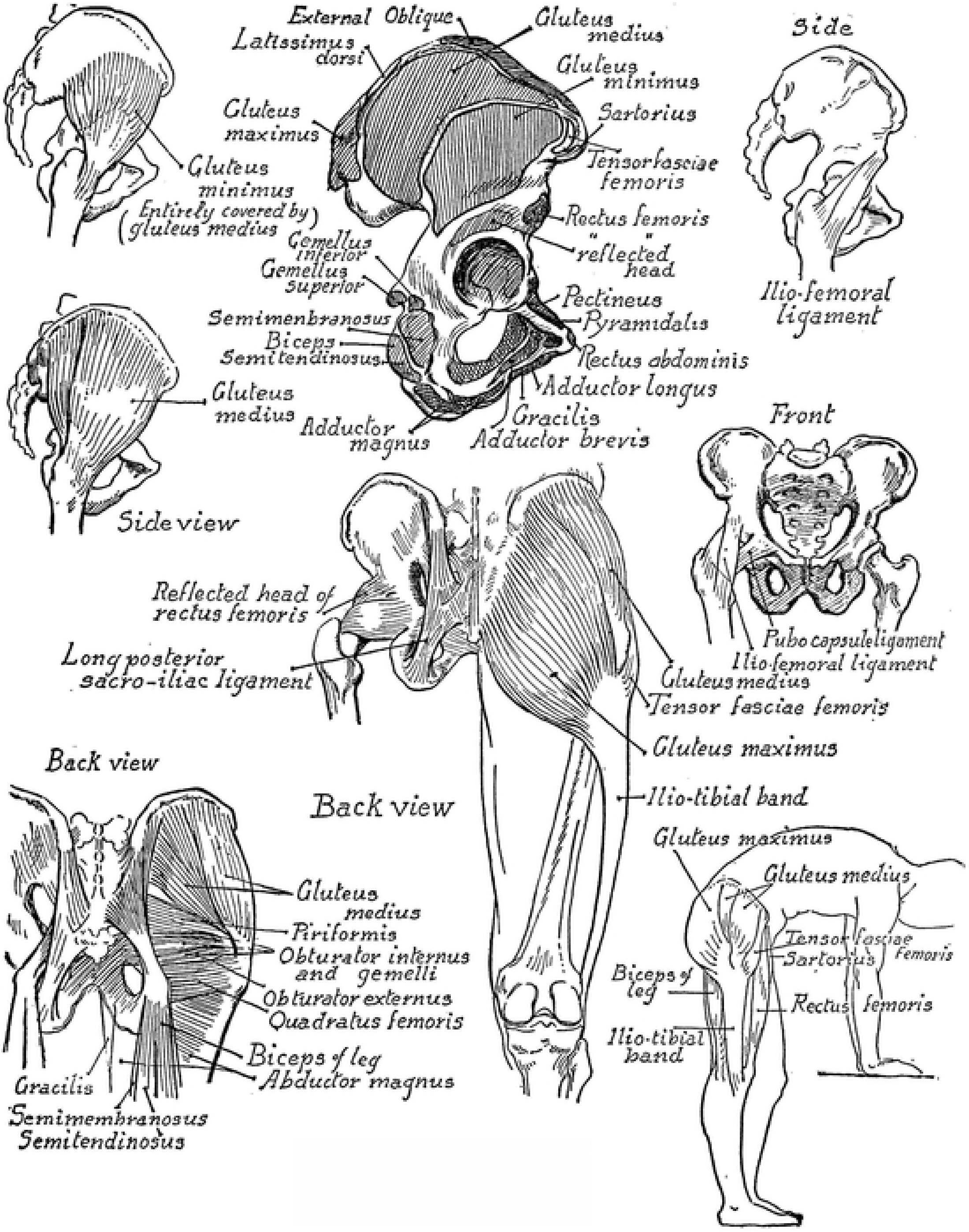
Upper - leg from the Front



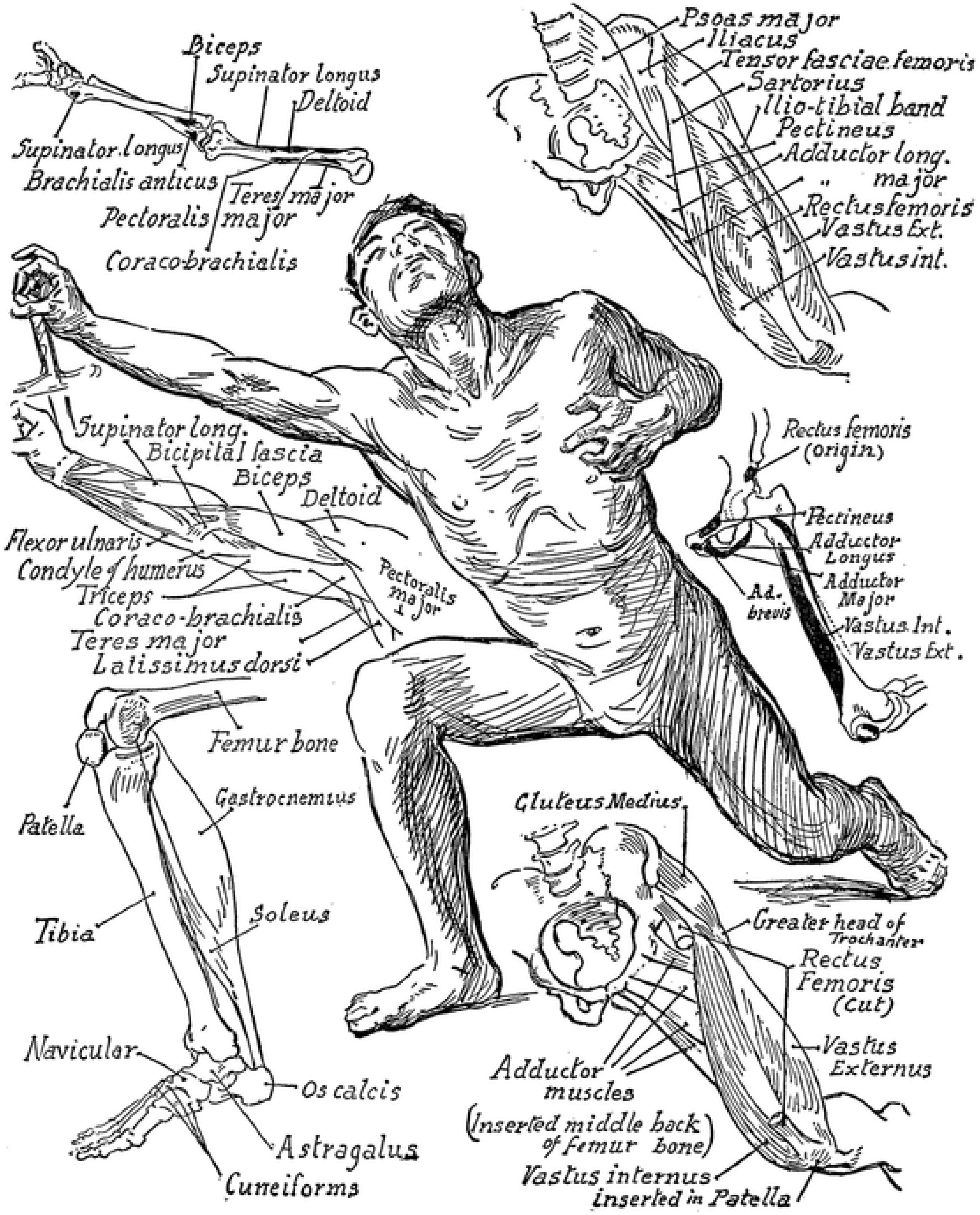
Pectineus
Adductor brevis
Adductor longus
Adductor magnus
Gracilis
Femoral arch
Gracilis
Patella
Iliacus
Psoas
Pubic bone
Iliac bone
Ilio-femoral ligament
Pubo-capsular ligament
Greater trochanter of femur
Pubic bone
Obturator membrane
Femur bone
Gluteus medius
Gluteus minimus
Vastus externus
Vastus internus
Iliacus
Psoas
Attachment of muscles
Vertebrae
Sacrum
Gluteus medius
Rectus femoris (Cut)
Pectineus
Adductor longus
Adductor magnus
Gracilis
Vastus externus
Vastus internus
Rectus femoris Cut
Rectus femoris
Patella
Gluteus medius
Tensor fasciae femoris
Greater trochanter of femur bone
Ilio-tibial band
Vastus externus
Psoas
Iliacus
Pectineus
Adductor longus
Sartorius
Adductor magnus
Gracilis
Vastus internus
Patella ligament

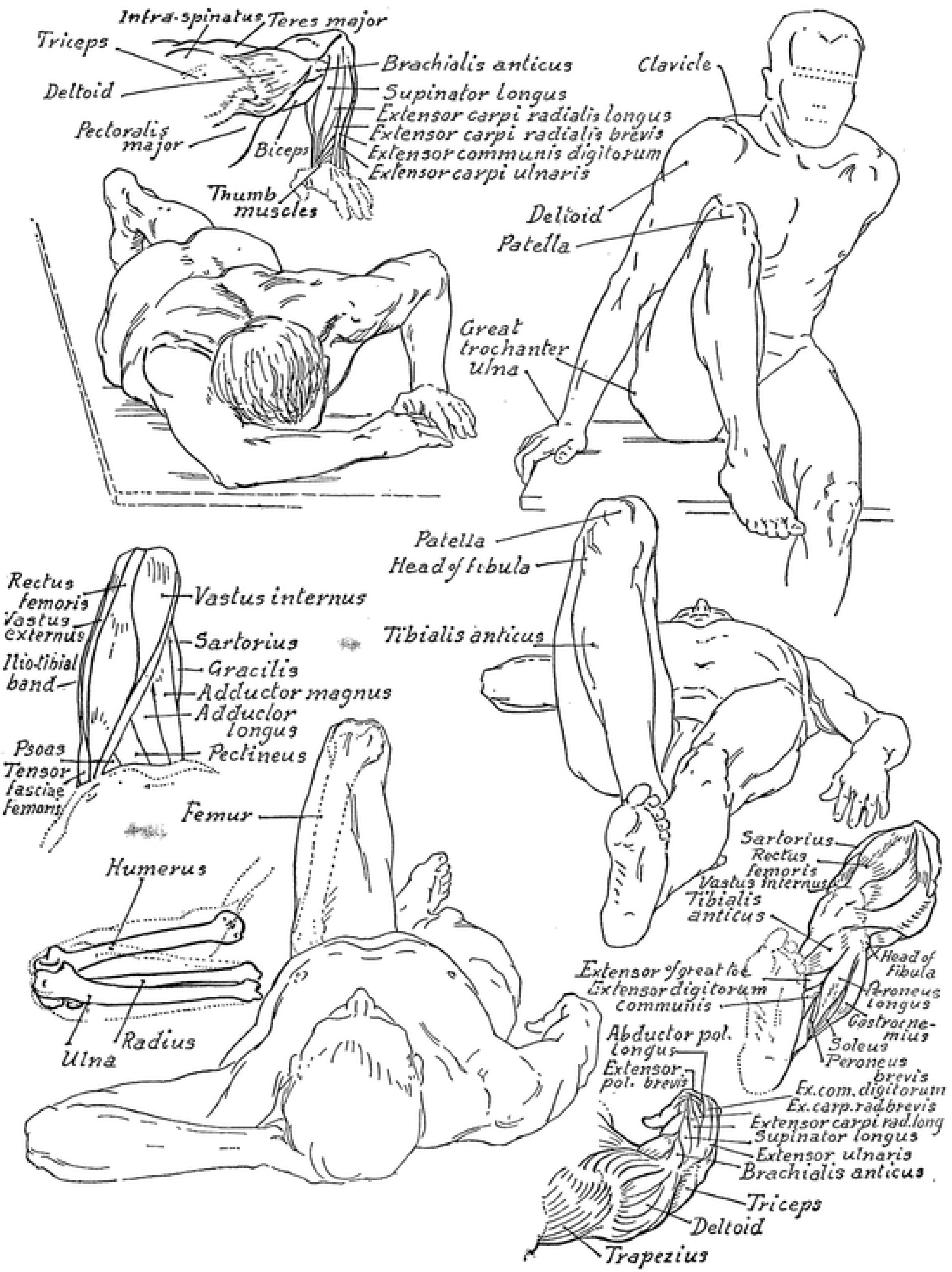

Iliac crest
Iliac bone
Head of femur
Great trochanter
Lesser trochanter
Femur bone
Linea aspera
Popliteal plane
Condyle
Fibula
Tibia
Gluteus minimus
Piriformis
Obturator internus and gemelli
Quadratus femoris
Adductors
Adductor magnus
Biceps long head
Semitendinosus
Semimembranosus
Gluteus medius
Tensor fasciae femoris
Great trochanter
Gluteus maximus
Gracilis
Semitendinosus
Adductor magnus
Semimembranosus
Ilio-tibial band
Biceps short head
Biceps long head
Semimembranosus
Vastus internus
Popliteal space

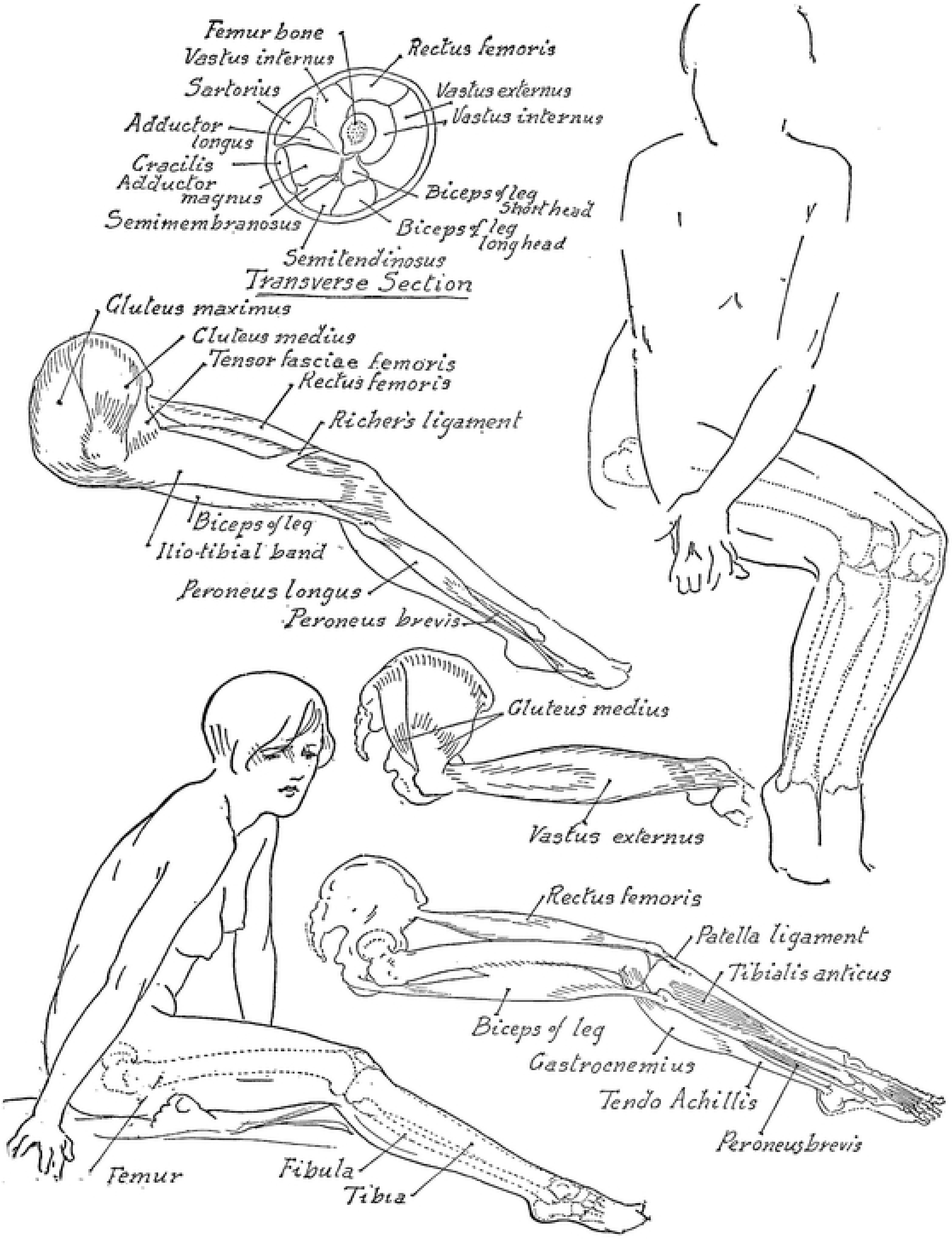
Back of Leg

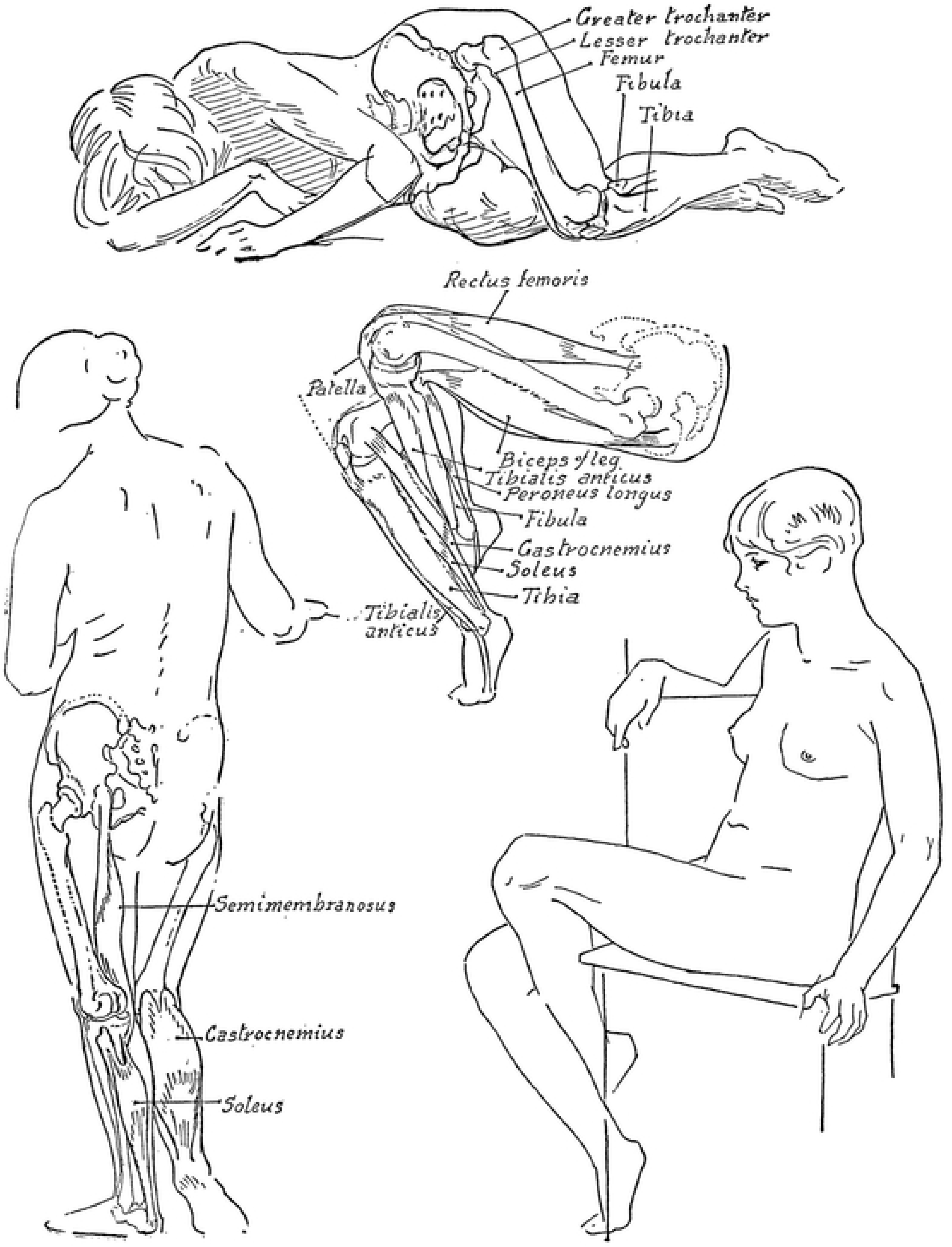

External Oblique
Latissimus dorsi
Gluteus medius
Gluteus minimus
Side
Gluteus maximus
Sartorius
Tensor fasciae femoris
Gluteus minimus
(Entirely covered by gluteus medius)
Rectus femoris
" " reflected head
Gemellus inferior
Gemellus superior
Pectineus
Pyramidalis
Ilio-femoral ligament
Semimenbranosus
Biceps
Semitendinosus
Rectus abdominis
Gluteus medius
Adductor longus
Gracilis
Adductor magnus
Adductor brevis
Front
Side view
Reflected head of rectus femoris
Pubo capsule ligament
Ilio-femoral ligament
Long posterior sacro-iliac ligament
Gluteus medius
Tensor fasciae femoris
Gluteus maximus
Back view
Ilio-tibial band
Back view
Gluteus maximus
Gluteus medius
Gluteus medius
Piriformis
Tensor fasciae femoris
Obturator internus and gemelli
Sartorius
Biceps of leg
Obturator externus
Rectus femoris
Quadratus femoris
Ilio-tibial band
Biceps of leg
Abductor magnus
Gracilis
Semimembranosus
Semitendinosus

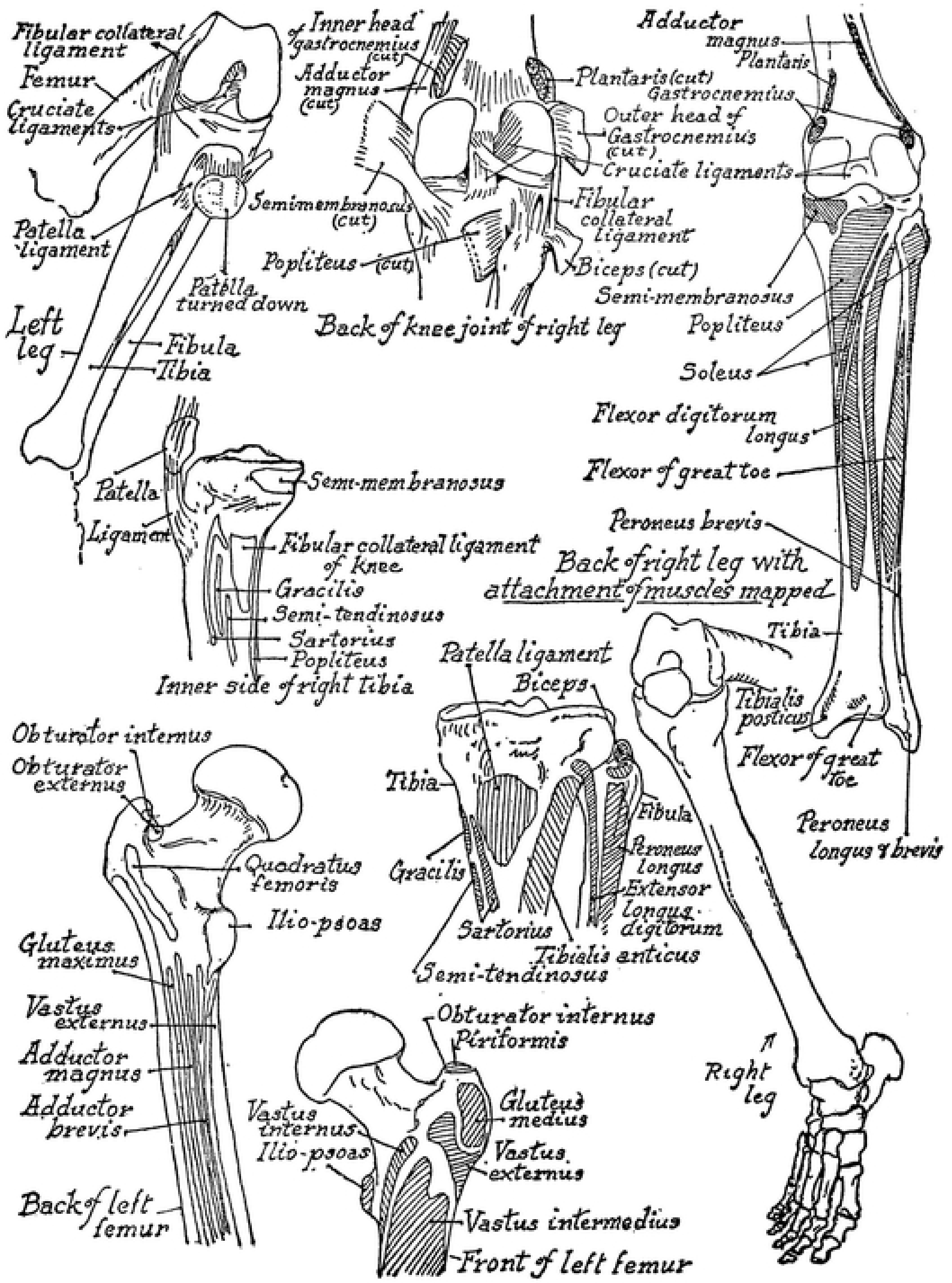
The Buttock.


Biceps
Supinator longus
Deltoid
Supinator longus
Brachialis anticus
Teres major
Pectoralis major
Coraco-brachialis
Psoas major
Iliacus
Tensor fasciae femoris
Sartorius
Ilio-tibial band
Pectineus
Adductor long.
" major
Rectus femoris
Vastus Ext.
Vastus int.
Rectus femoris (origin)
Pectineus
Adductor Longus
Adductor Major
Ad. brevis
Vastus Int.
Vastus Ext.
Supinator long.
Bicipital fascia
Biceps
Deltoid
Flexor ulnaris
Condyle of humerus
Triceps
Coraco-brachialis
Teres major
Latissimus dorsi
Pectoralis major
Femur bone
Patella
Gastrocnemius
Tibia
Soleus
Navicular
Os calcis
Astragalus
Cuneiforms
Gluteus Medius
Greater head of Trochanter
Rectus Femoris (Cut)
Vastus Externus
Adductor muscles
(Inserted middle back of femur bone)
Vastus internus inserted in Patella


Intra-spinatus
Teres major
Triceps
Deltoid
Pectoralis major
Biceps
Thumb muscles
Brachialis anticus
Supinator longus
Extensor carpi radialis longus
Extensor carpi radialis brevis
Extensor communis digitorum
Extensor carpi ulnaris
Clavicle
Deltoid
Patella
Great trochanter
Ulna
Patella
Head of fibula
Tibialis anticus
Rectus femoris
Vastus externus
Ilio-tibial band
Psoas
Tensor fasciae femoris
Vastus internus
Sartorius
Gracilis
Adductor magnus
Adductor longus
Pectineus
Femur
Humerus
Ulna
Radius
Sartorius
Rectus femoris
Vastus internus
Tibialis anticus
Head of fibula
Extensor of great toe
Extensor digitorum communis
Peroneus longus
Gastrocnemius
Soleus
Peroneus brevis
Abductor pol. longus
Extensor pol. brevis
Ex. com. digitorum
Ex. carp. rad. brevis
Extensor carpi rad. long
Supinator longus
Extensor ulnaris
Brachialis anticus
Triceps
Deltoid
Trapezius


Femur bone
Vastus internus
Rectus femoris
Sartorius
Vastus externus
Vastus internus
Adductor longus
Gracilis
Adductor magnus
Biceps of leg Short head
Semimembranosus
Biceps of leg long head
Semitendinosus
Transverse Section
Gluteus maximus
Gluteus medius
Tensor fasciae femoris
Rectus femoris
Richer's ligament
Biceps of leg
Ilio-tibial band
Peroneus longus
Peroneus brevis
Gluteus medius
Vastus externus
Rectus femoris
Patella ligament
Tibialis anticus
Biceps of leg
Gastrocnemius
Tendo Achillis
Peroneus brevis
Femur
Fibula
Tibia


Greater trochanter
Lesser trochanter
Femur
Fibula
Tibia
Rectus femoris
Patella
Biceps of leg
Tibialis anticus
Peroneus longus
Fibula
Gastrocnemius
Soleus
Tibia
Tibialis anticus
Semimembranosus
Gastrocnemius
Soleus



Left leg

Back of knee joint of right leg

Back of right leg with attachment of muscles mapped

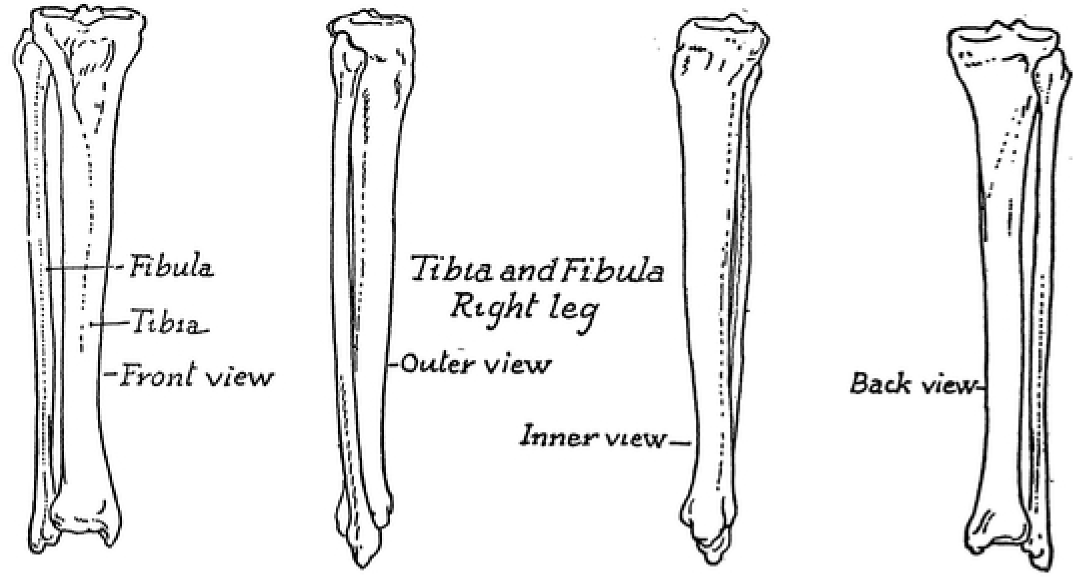
Inner side of right tibia

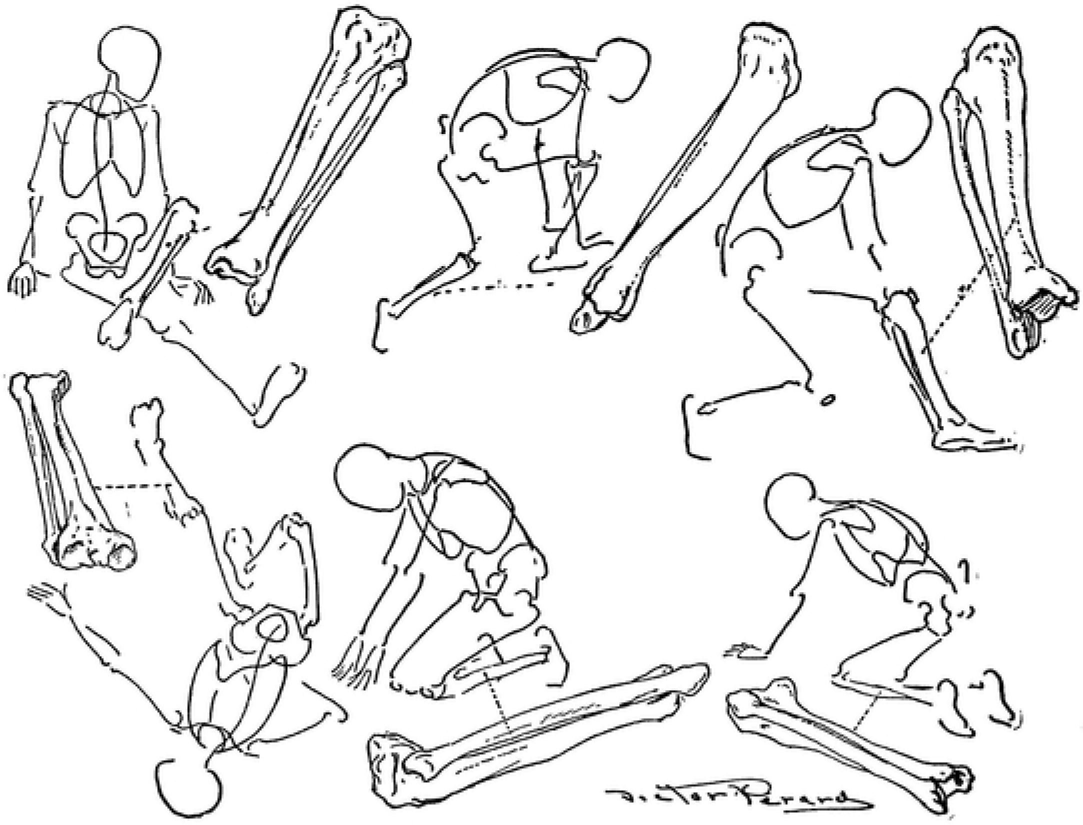
Right leg

Back of left femur

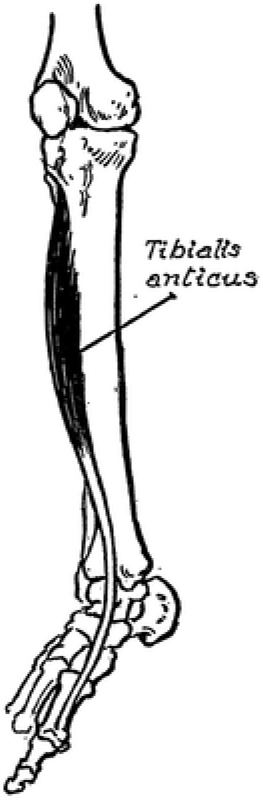
Front of left femur

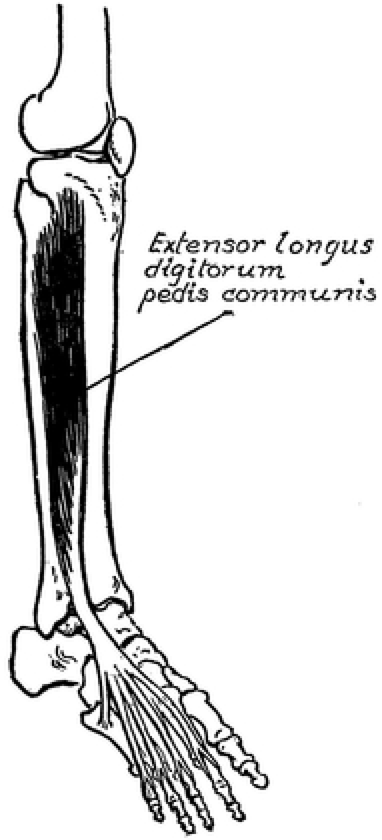
Fibular collateral ligament
Femur
Cruciate ligaments
Patella ligament
Patella turned down
Fibula
Tibia
Inner head of gastrocnemius (cut)
Adductor magnus (cut)
Semimembranosus (cut)
Popliteus (cut)
Plantaris (cut)
Outer head of Gastrocnemius (cut)
Cruciate ligaments
Fibular collateral ligament
Biceps (cut)
Adductor magnus
Plantaris
Gastrocnemius
Cruciate ligaments
Semi-membranosus
Popliteus
Soleus
Flexor digitorum longus
Flexor of great toe
Peroneus brevis
Tibia
Tibialis posticus
Flexor of great toe
Peroneus longus & brevis
Patella
Ligament
Semi-membranosus
Fibular collateral ligament of knee
Gracilis
Semi-tendinosus
Sartorius
Popliteus
Patella ligament
Biceps
Tibia
Fibula
Gracilis
Peroneus longus
Extensor longus digitorum
Sartorius
Tibialis anticus
Semi-tendinosus
Obturator internus
Obturator externus
Quadratus femoris
Ilio-psoas
Gluteus maximus
Vastus externus
Adductor magnus
Adductor brevis
Obturator internus
Piriformis
Gluteus medius
Vastus internus
Ilio-psoas
Vastus externus
Vastus intermedius

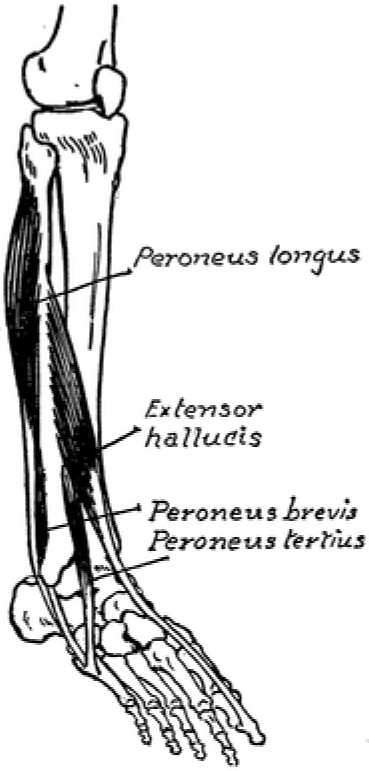

Fibula
Tibia
Front view
Tibia and Fibula
Right leg
Outer view
Inner view
Back view

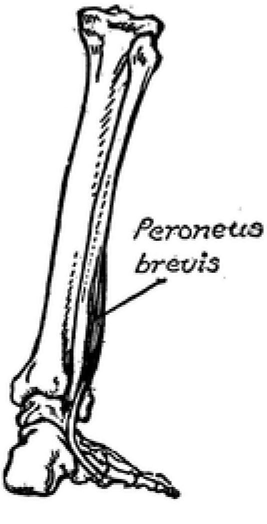

Victor Perard

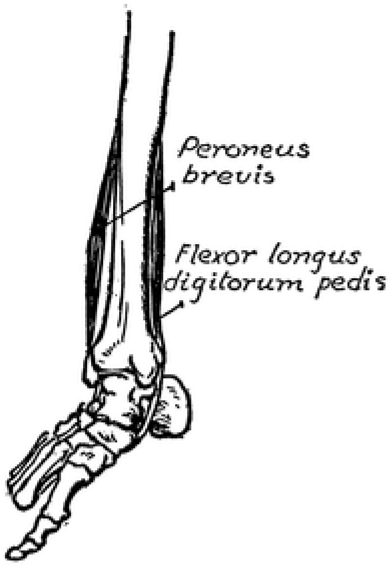
Tibia and Fibula Right leg

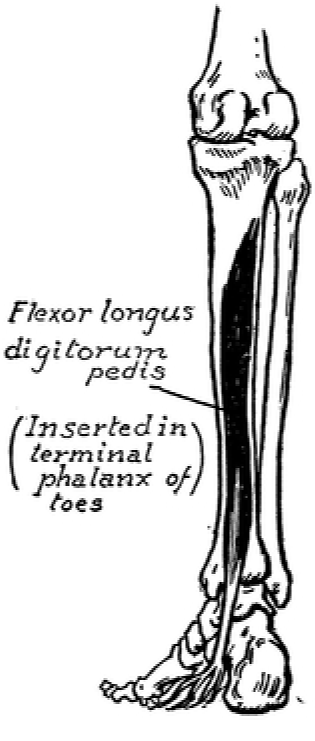

Tibialis anticus

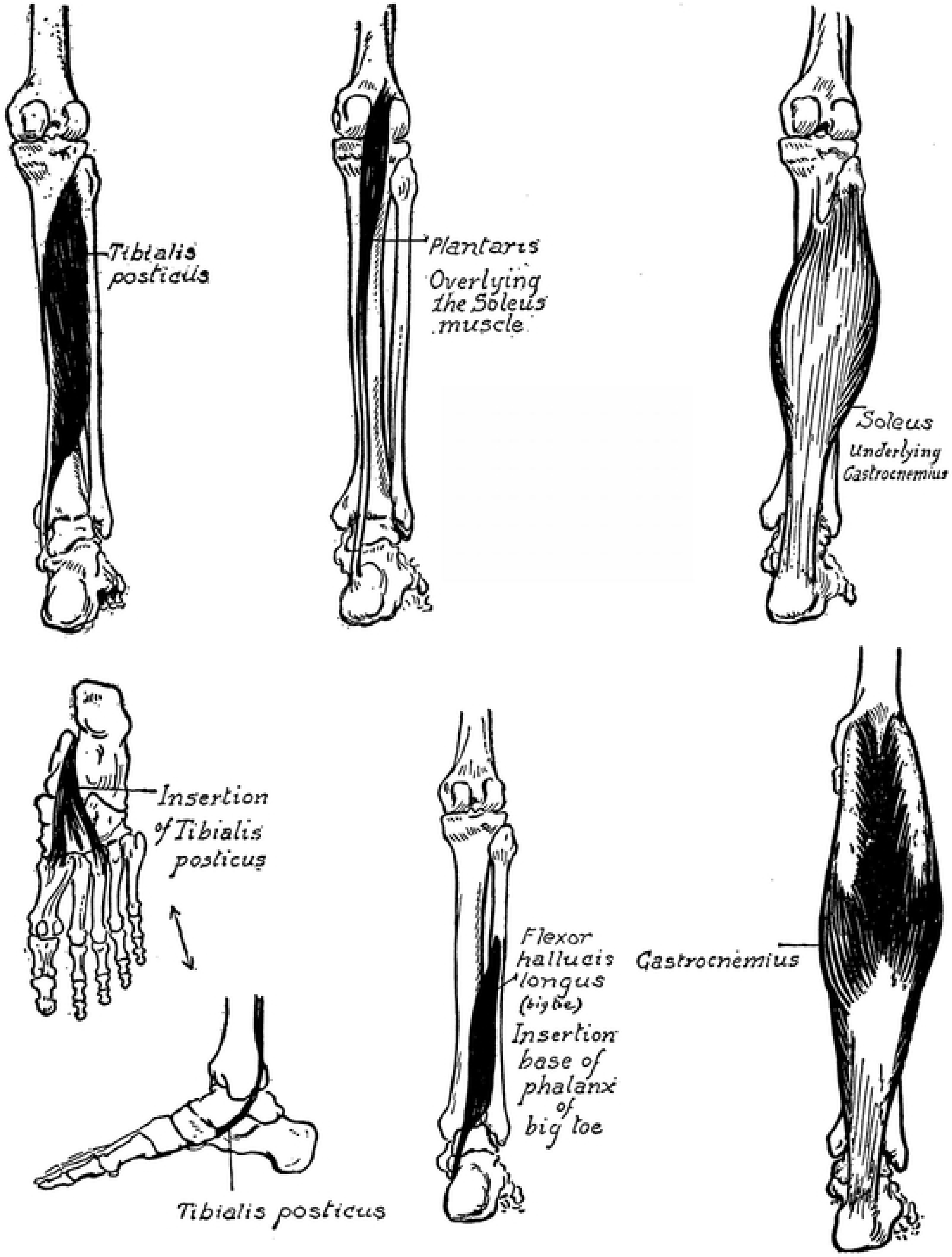

Extensor longus digitorum pedis communis


Peroneus longus
Extensor hallucis
Peroneus brevis
Peroneus tertius


Peroneus brevis


Peroneus brevis
Flexor longus digitorum pedis

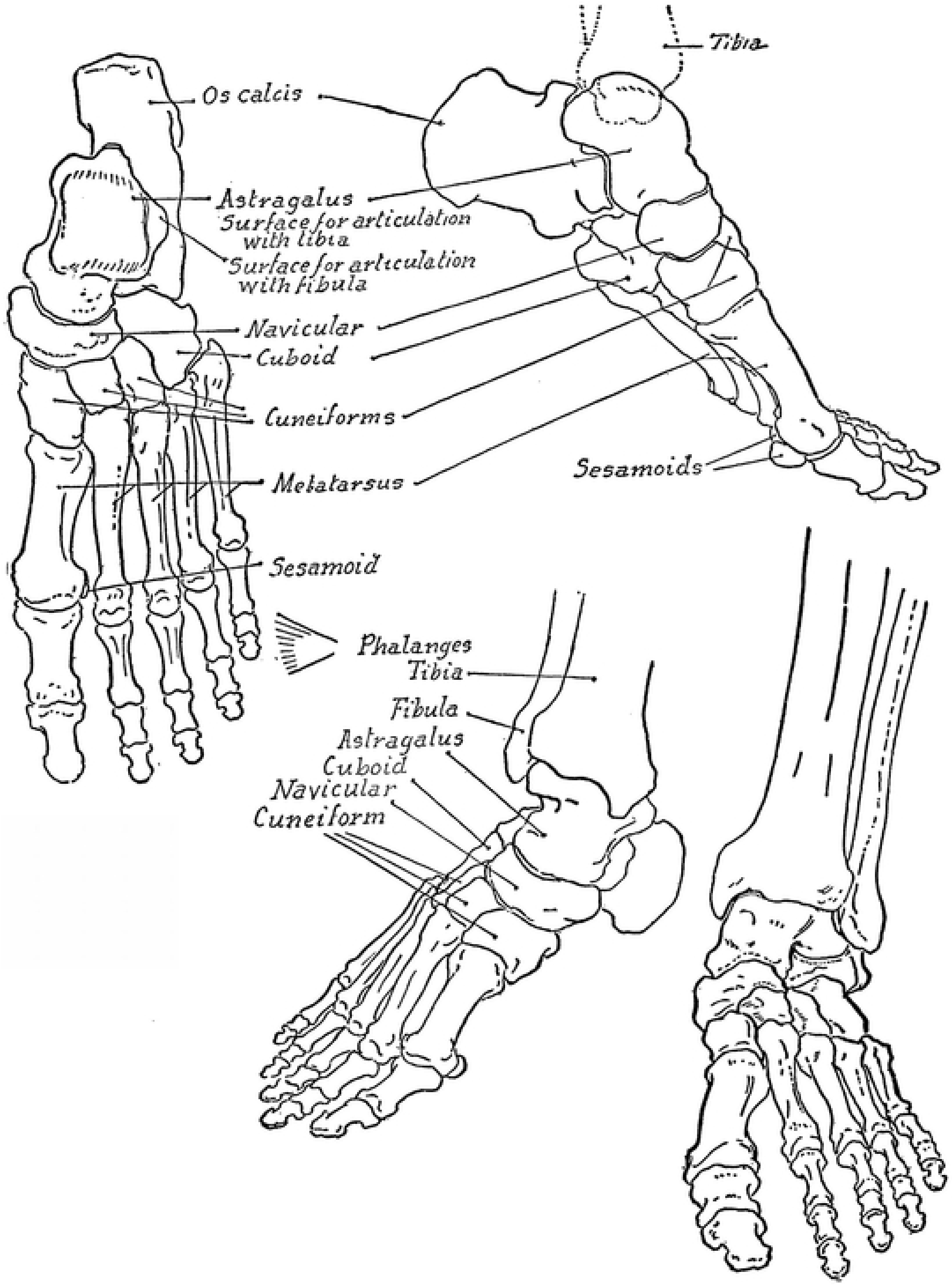

Flexor longus digitorum pedis
(Inserted in terminal phalanx of toes)


Tibialis posticus
Plantaris
Overlying the Soleus muscle
Soleus
Underlying Gastrocnemius
Insertion of Tibialis posticus
Tibialis posticus
Flexor hallucis longus
(big toe)
Insertion base of phalanx of big toe
Gastrocnemius

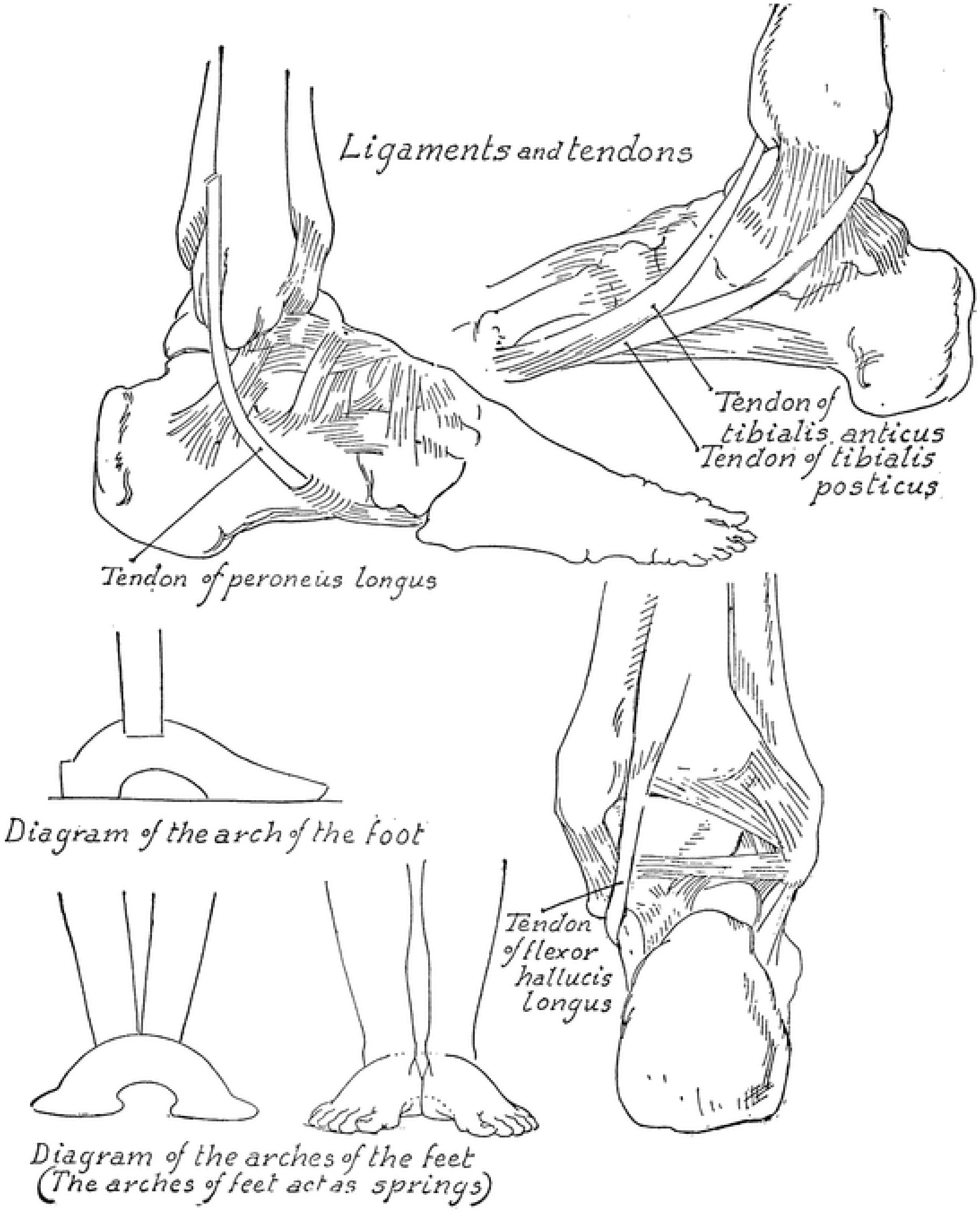
Muscle 5 of the calf leg

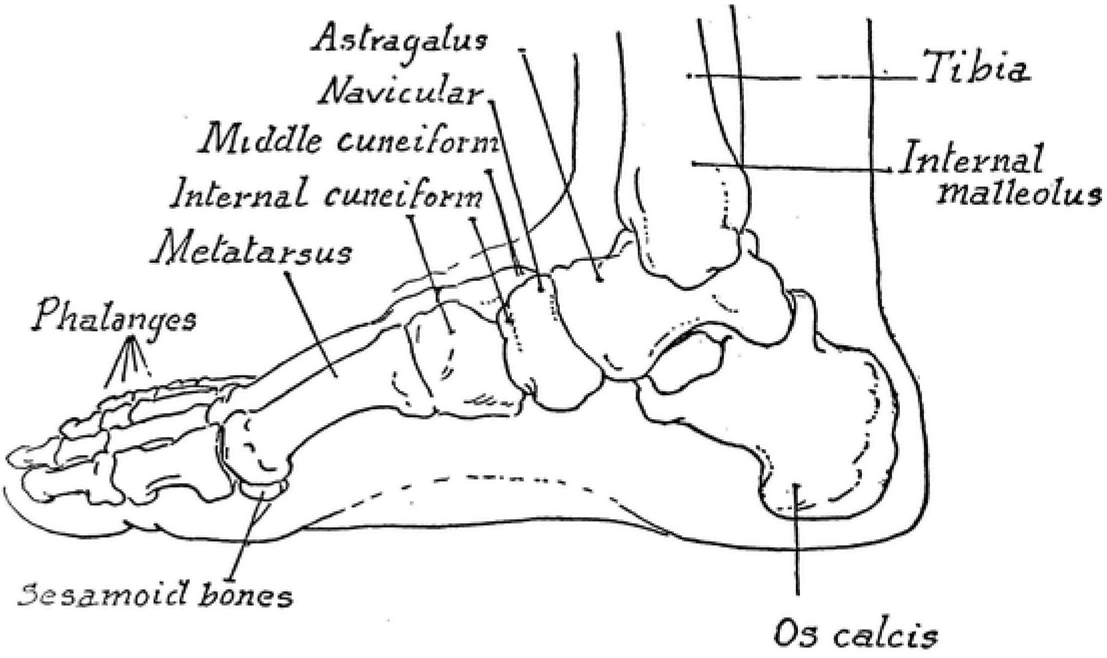
PART EIGHT

THE FOOT

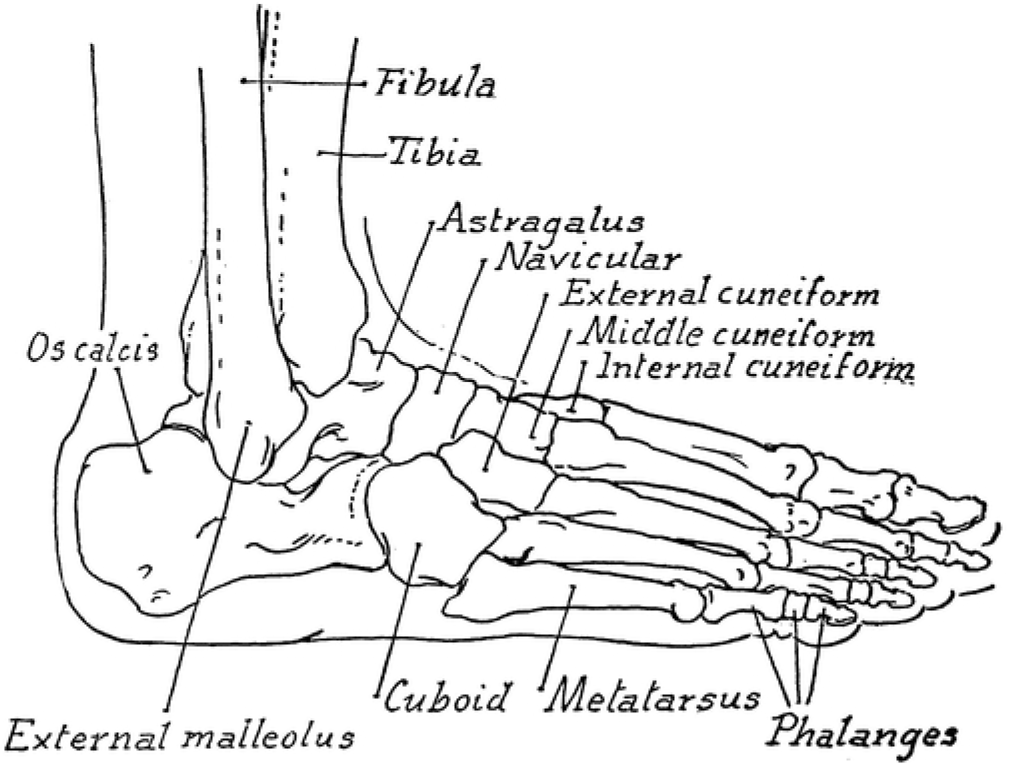

Tibia
Os calcis
Astragalus
Surface for articulation with tibia
Surface for articulation with fibula
Navicular
Cuboid
Cuneiforms
Metatarsus
Sesamoids
Sesamoid
Phalanges
Tibia
Fibula
Astragalus
Cuboid
Navicular
Cuneiform

Top View

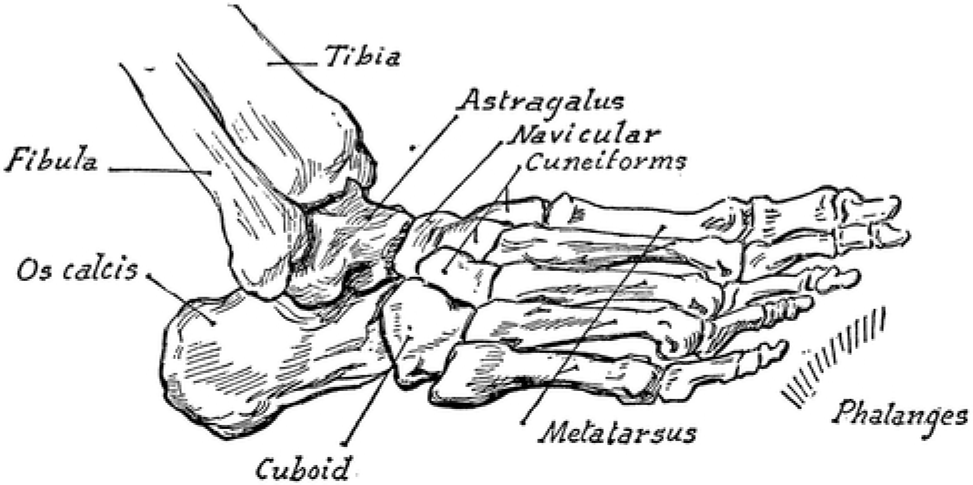

Ligaments and tendons
Tendon of tibialis anticus
Tendon of tibialis posticus
Tendon of peroneus longus
Diagram of the arch of the foot
Tendon of flexor hallucis longus
Diagram of the arches of the feet
(The arches of feet act as springs)

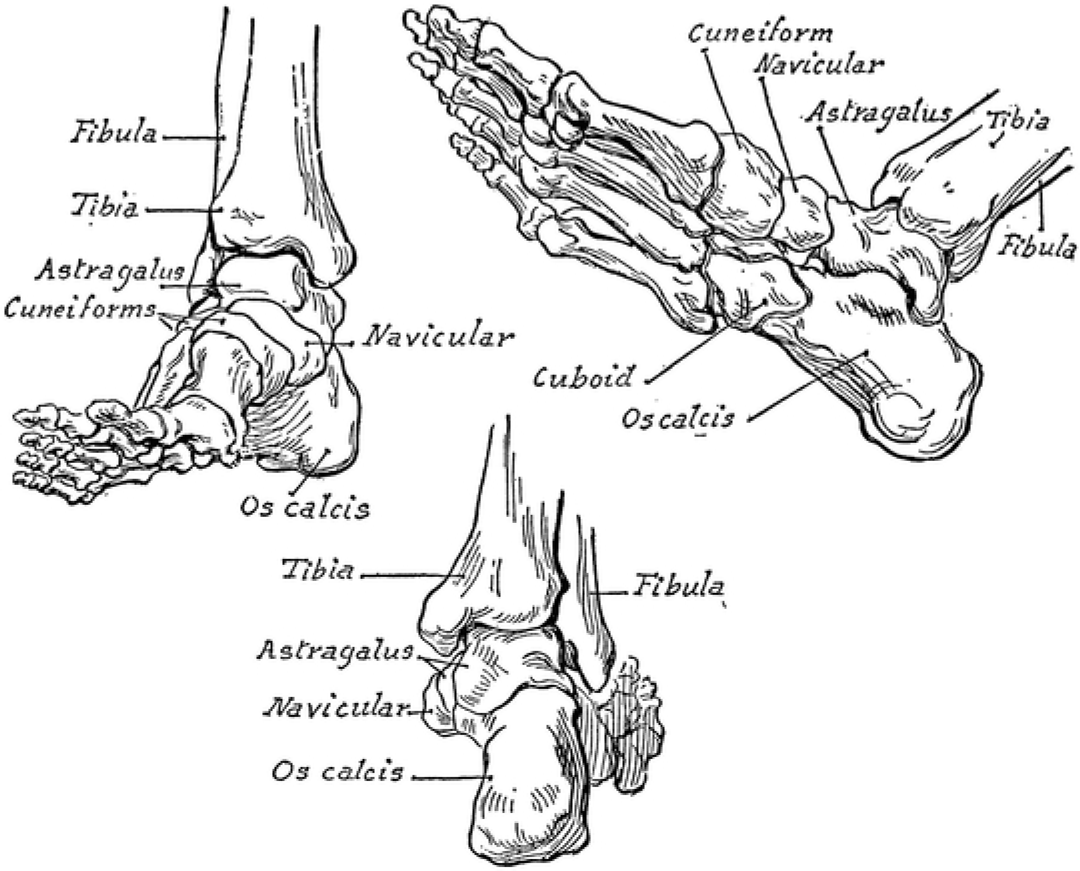

Astragalus
Navicular
Middle cuneiform
Internal cuneiform
Metatarsus
Phalanges
Tibia
Internal malleolus
Sesamoid bones
Os calcis

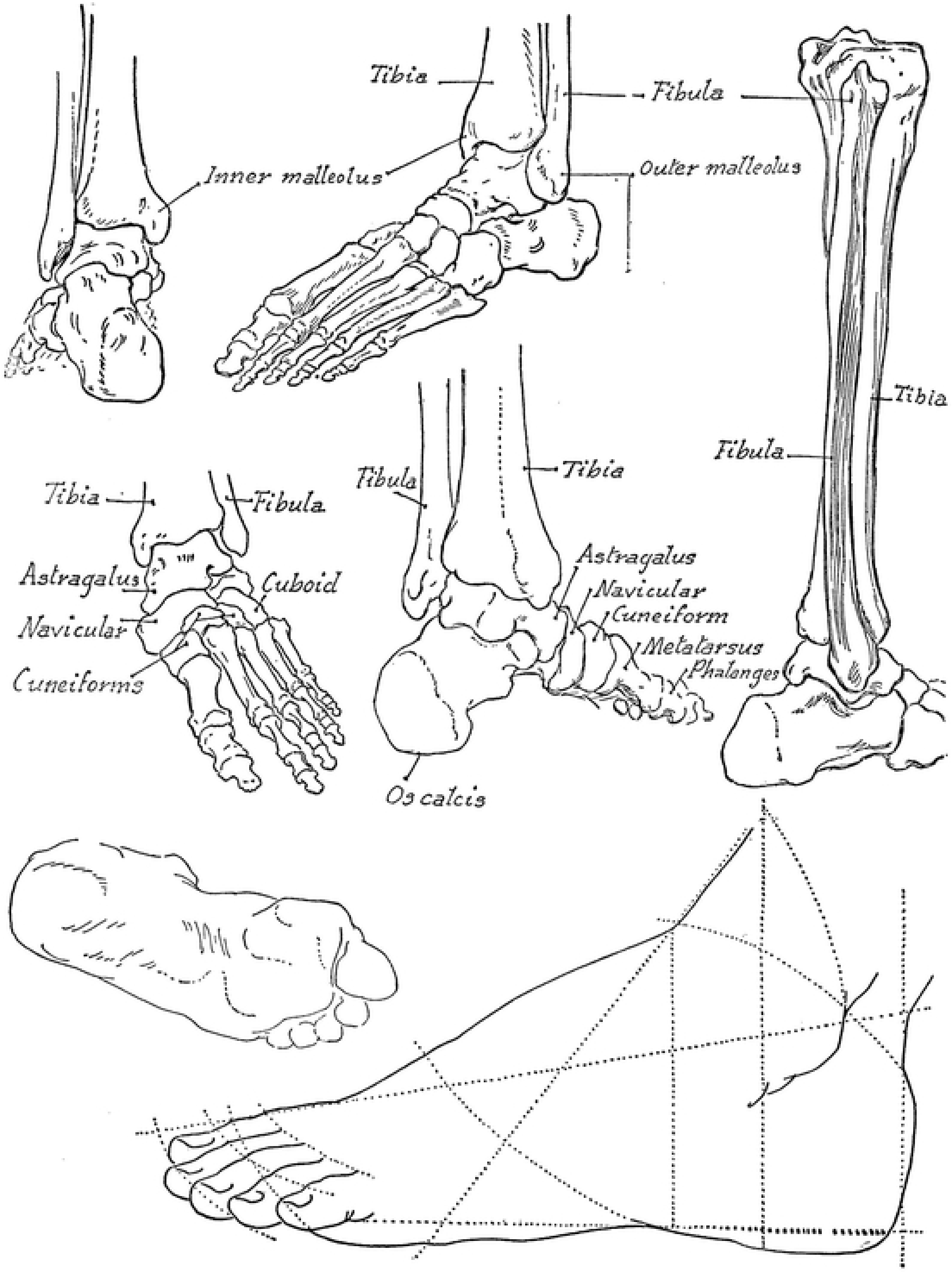
Inner-view

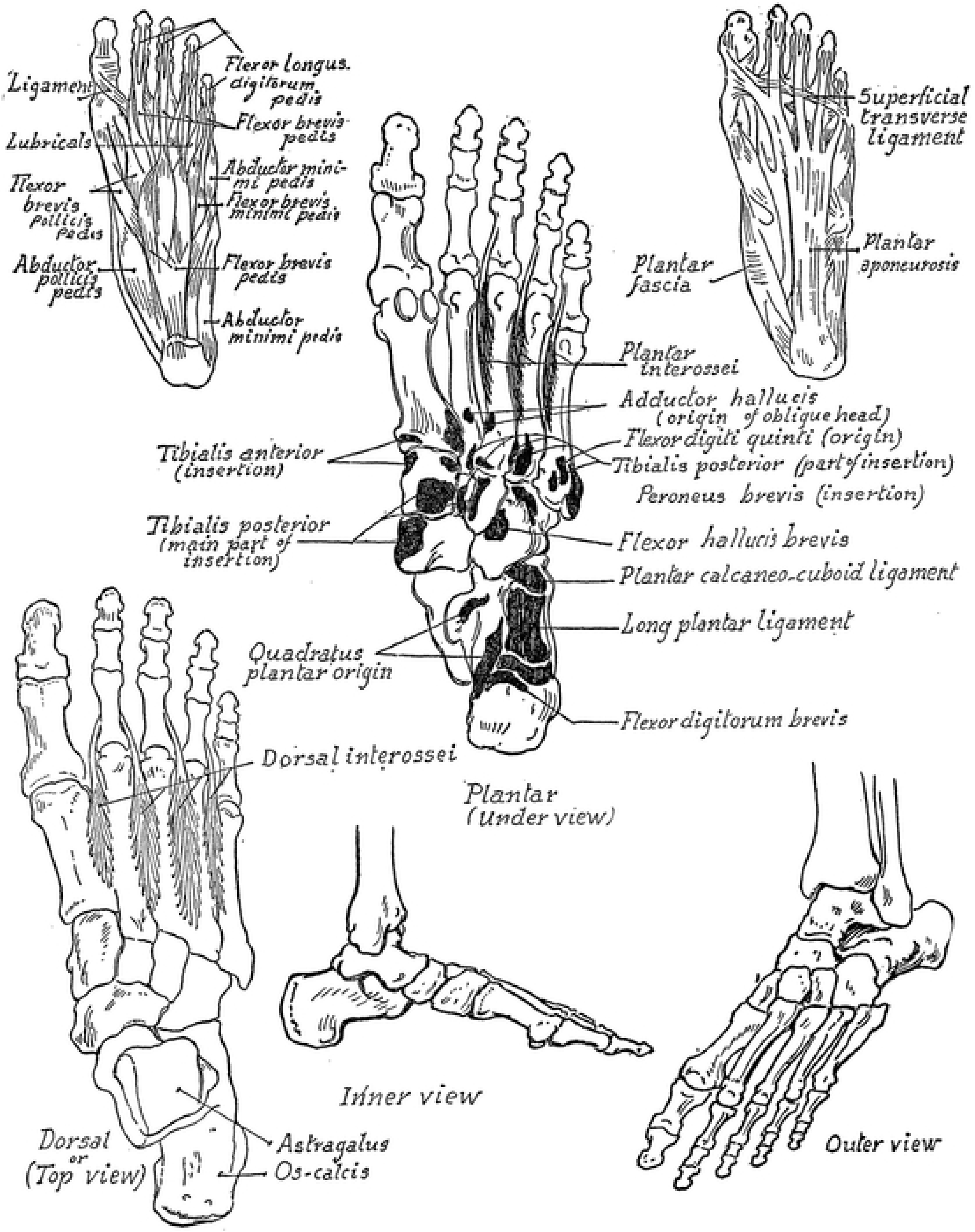

Fibula
Tibia
Astragalus
Navicular
External cuneiform
Middle cuneiform
Internal cuneiform
Os calcis
External malleolus
Cuboid
Metatarsus
Phalanges

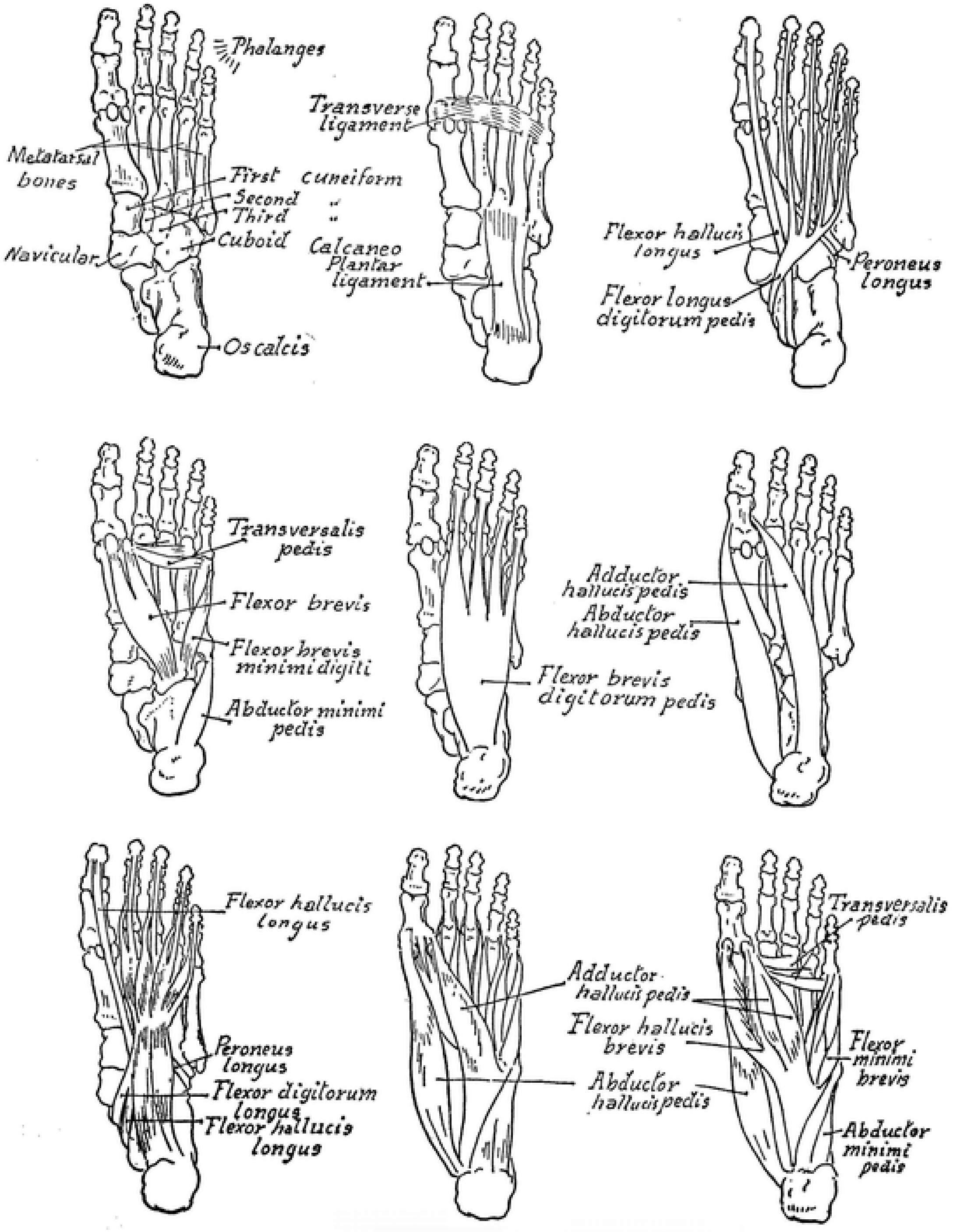
Outer view


Tibia
Astragalus
Navicular
Cuneiforms
Fibula
Os calcis
Phalanges
Metatarsus
Cuboid

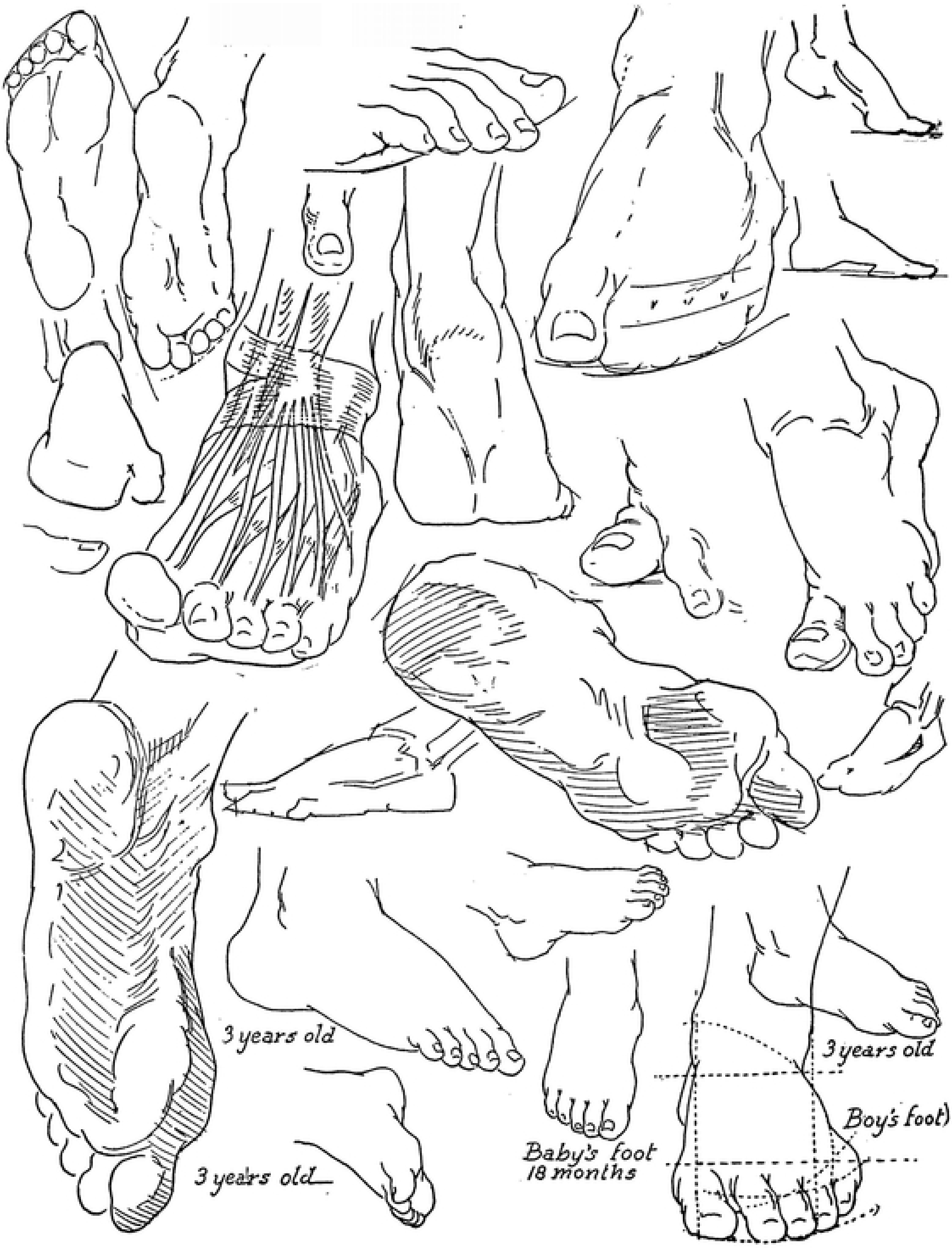

Fibula
Tibia
Astragalus
Cuneiforms
Navicular
Os calcis
Cuneiform
Navicular
Astragalus
Tibia
Fibula
Cuboid
Os calcis
Tibia
Fibula
Astragalus
Navicular
Os calcis


Tibia
Fibula
Inner malleolus
Outer malleolus
Tibia
Fibula
Tibia
Fibula
Astragalus
Cuboid
Navicular
Cuneiforms
Tibula
Tibia
Astragalus
Navicular
Cuneiform
Metatarsus
Phalonges
Os calcis
Fibula
Tibia

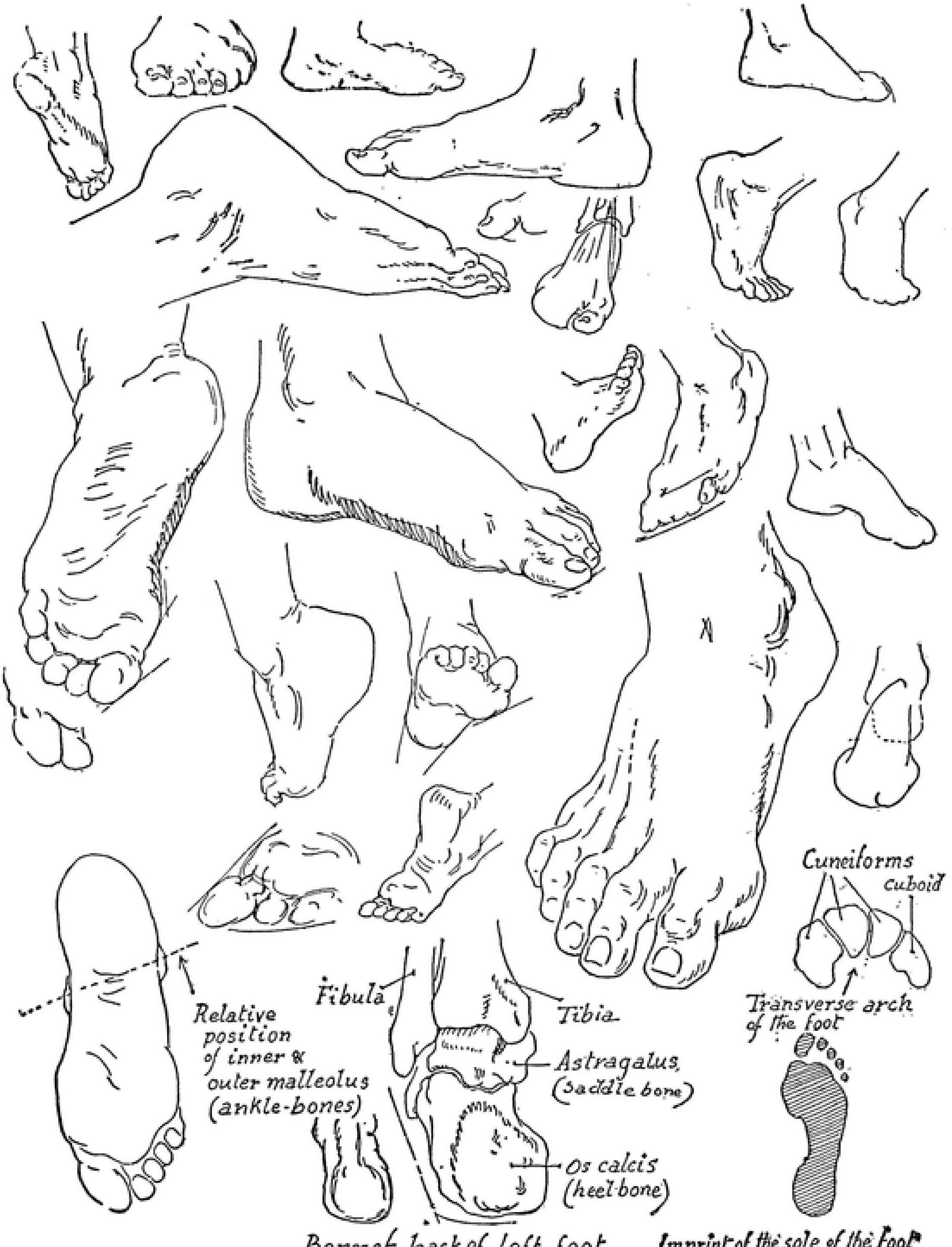

Ligament
Flexor longus digitorum pedis
Flexor brevis pedis
Lubricals
Abductor minimi pedis
Flexor brevis pollicis pedis
Flexor brevis minimi pedis
Abductor pollicis pedis
Flexor brevis pedis
Abductor minimi pedis
Superficial transverse ligament
Plantar fascia
Plantar aponeurosis
Plantar interossei
Adductor hallucis (origin of oblique head)
Tibialis anterior (insertion)
Flexor digiti quinti (origin)
Tibialis posterior (part of insertion)
Peroneus brevis (insertion)
Tibialis posterior (main part of insertion)
Flexor hallucis brevis
Plantar calcaneo-cuboid ligament
Long plantar ligament
Quadratus plantar origin
Flexor digitorum brevis
Dorsal interossei
Plantar (Under view)
Inner view
Outer view
Dorsal or (Top view)
Astragalus
Os-calcis


Phalanges
Metatarsal bones
First cuneiform
Second "
Third "
Cuboid
Navicular
Os calcis
Transverse ligament
Calcaneo Plantar ligament
Flexor hallucis longus
Peroneus longus
Flexor longus digitorum pedis
Transversalis pedis
Flexor brevis
Flexor brevis minimi digiti
Abductor minimi pedis
Flexor brevis digitorum pedis
Adductor hallucis pedis
Abductor hallucis pedis
Flexor hallucis longus
Peroneus longus
Flexor digitorum longus
Flexor hallucis longus
Adductor hallucis pedis
Flexor hallucis brevis
Abductor hallucis pedis
Transversalis pedis
Flexor minimi brevis
Abductor minimi pedis

Plantar View of Foot

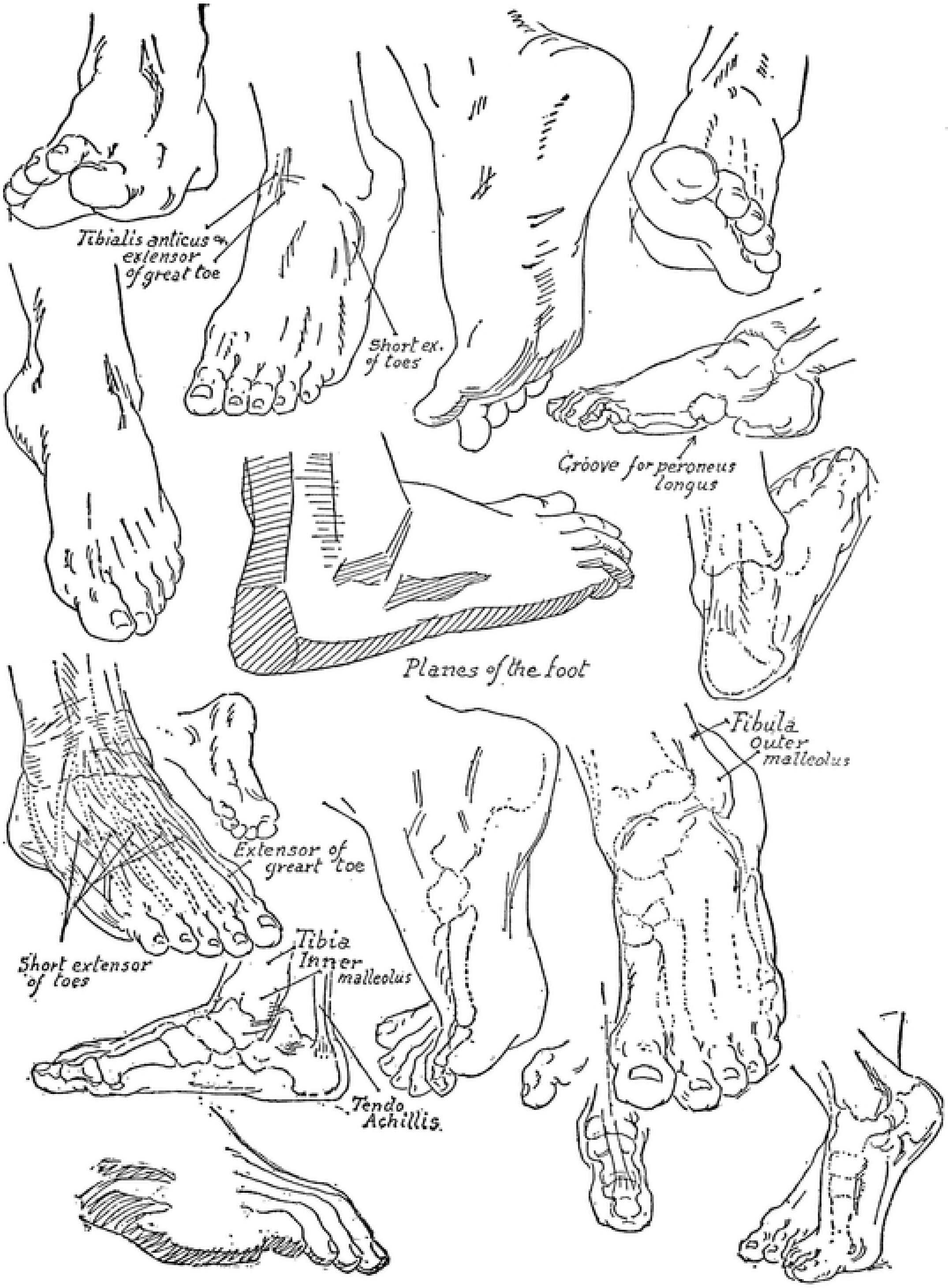

3 years old
3 years old
Boy's foot)
Baby's foot
18 months
3 years old

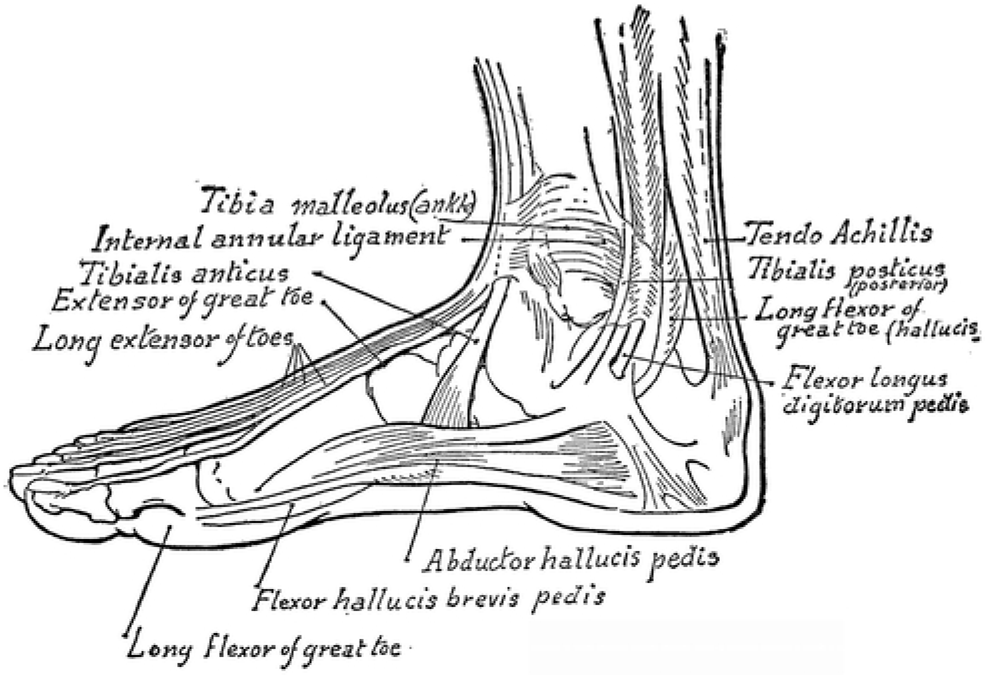
Studies of feet


Relative position of inner & outer malleolus (ankle-bones)
Fibula
Tibia
Astragalus (saddle bone)
Os calcis (heel-bone)
Cuneiforms
cuboid
Transverse arch of the foot

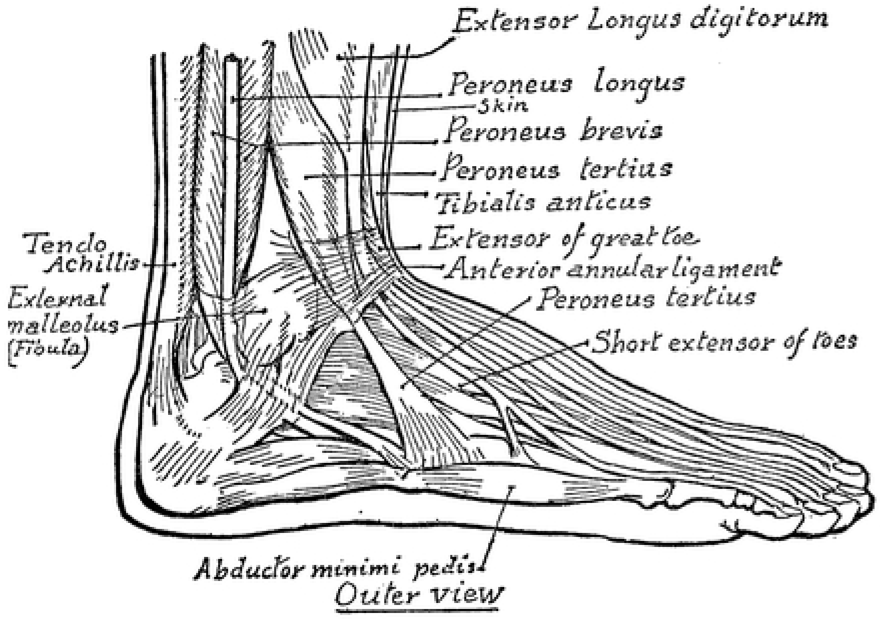
Bones of back of left foot

Imprint of the sole of the Foot


Tibialis anticus &
extensor
of great toe
Short ex.
of toes
Groove for peroneus
longus
Planes of the foot
Fibula
outer
malleolus
Extensor of
greart toe
Short extensor
of toes
Tibia
Inner
malleolus
Tendo
Achillis


Tibia malleolus(ankle)
Internal annular ligament
Tibialis anticus
Extensor of great toe
Long extensor of toes
Tendo Achillis
Tibialis posticus (posterior)
Long flexor of great toe (hallucis)
Flexor longus digitorum pedis
Abductor hallucis pedis
Flexor hallucis brevis pedis
Long flexor of great toe

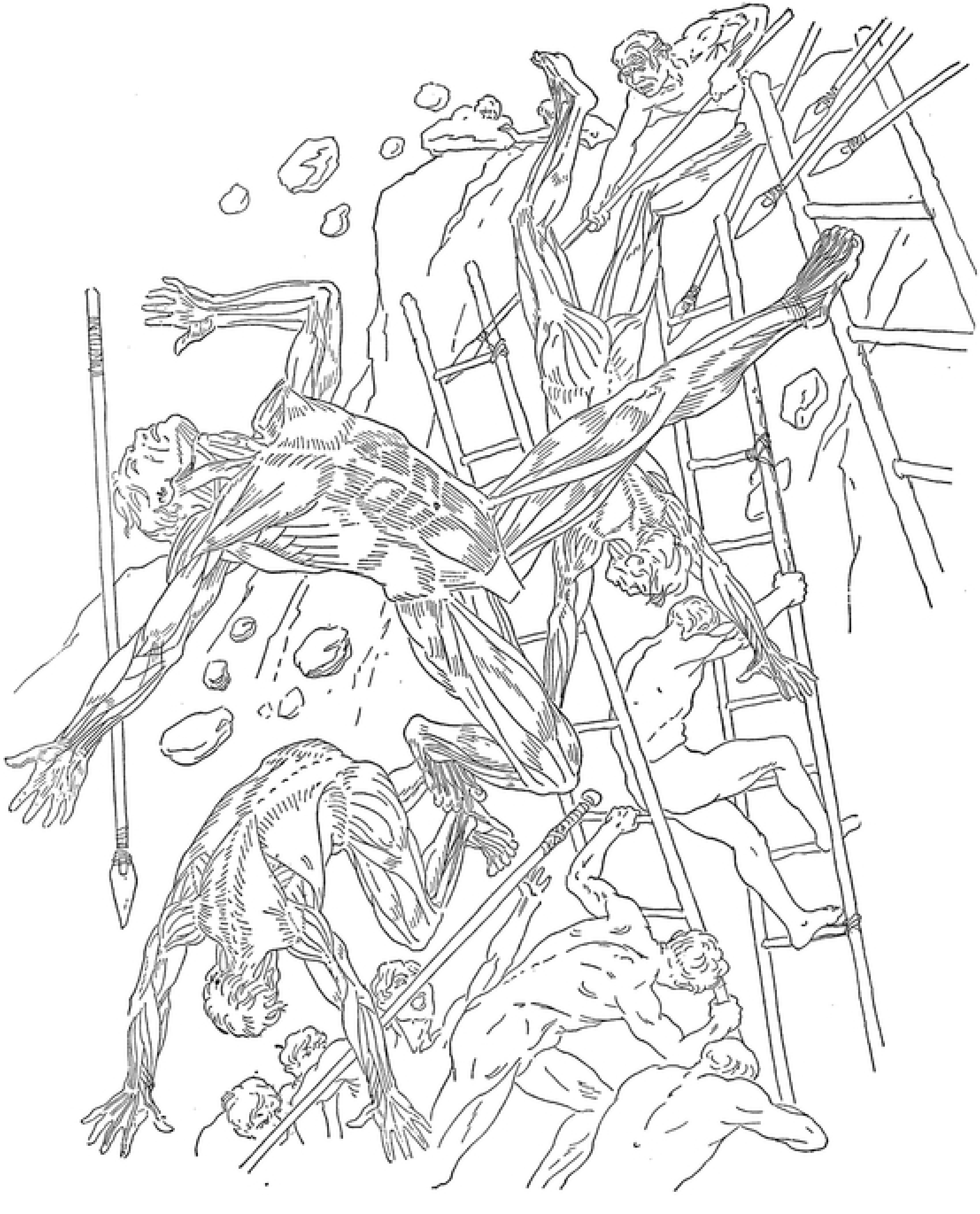
Inner view

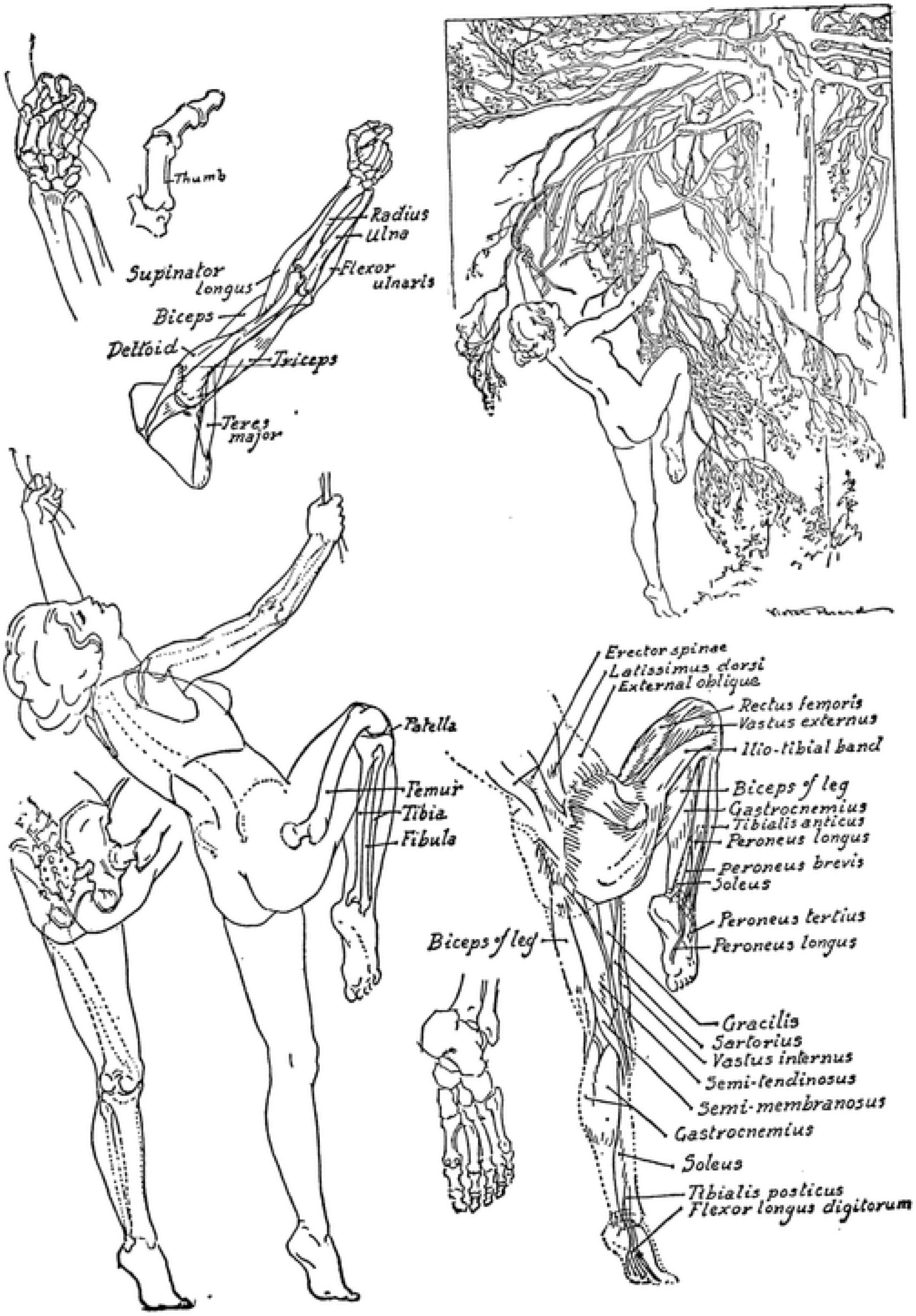

Extensor Longus digitorum
Peroneus longus
Skin
Peroneus brevis
Peroneus tertius
Tibialis anticus
Extensor of great toe
Anterior annular ligament
Peroneus tertius
Short extensor of toes
Tendo Achillis
External malleolus (Fibula)
Abductor minimi pedis
Outer view

Outer view

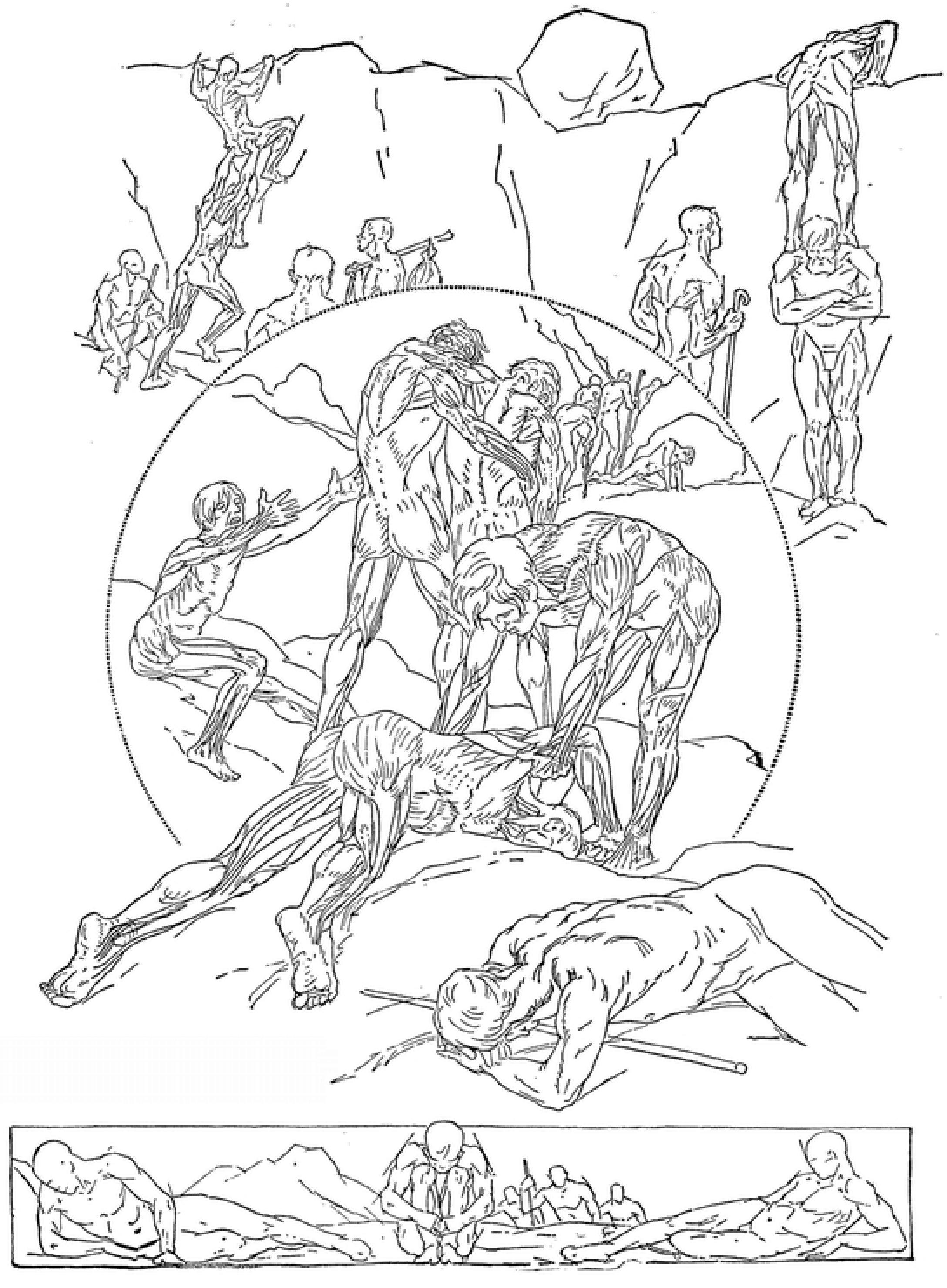
PART NINE

THE ECORCHE AND MUSCLES OF THE BODY

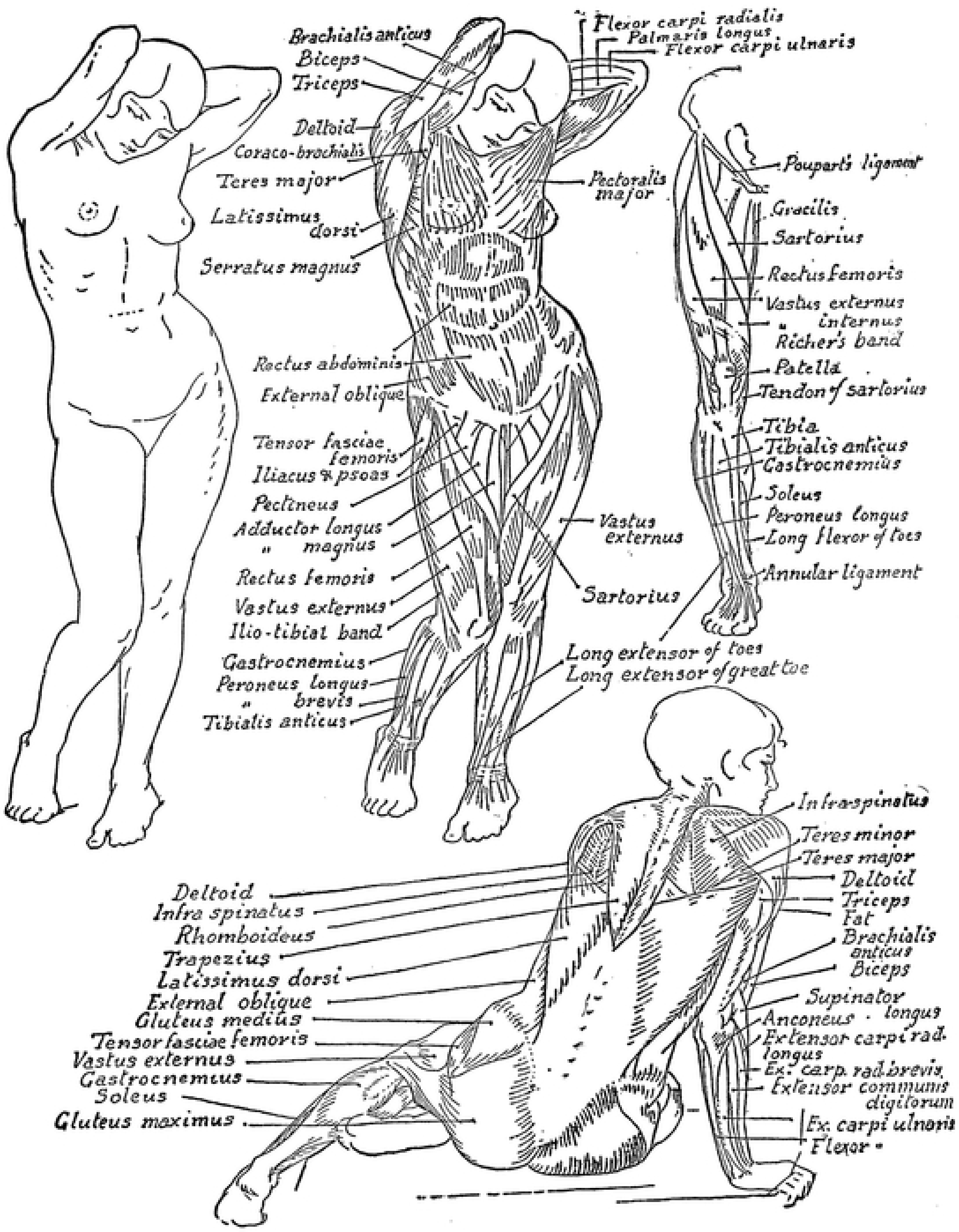


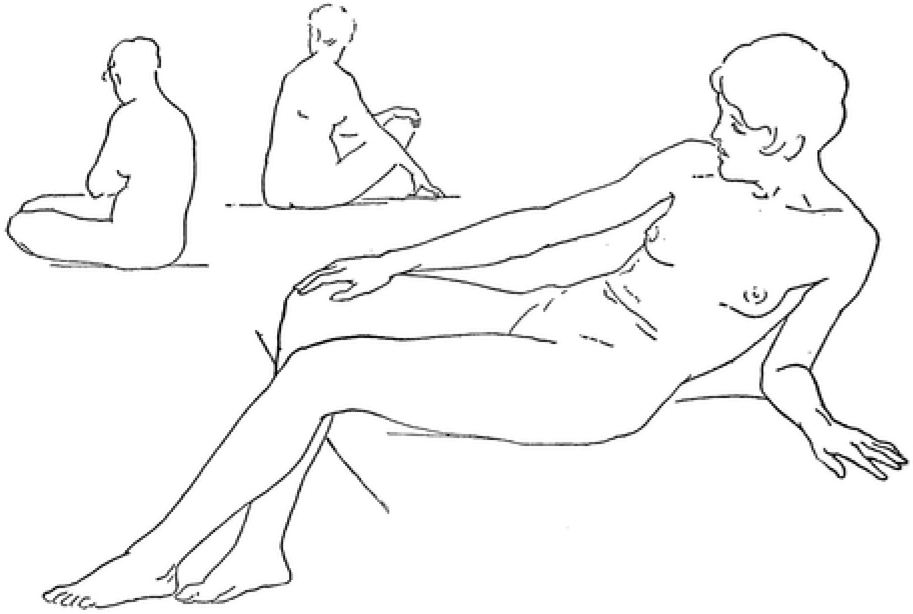


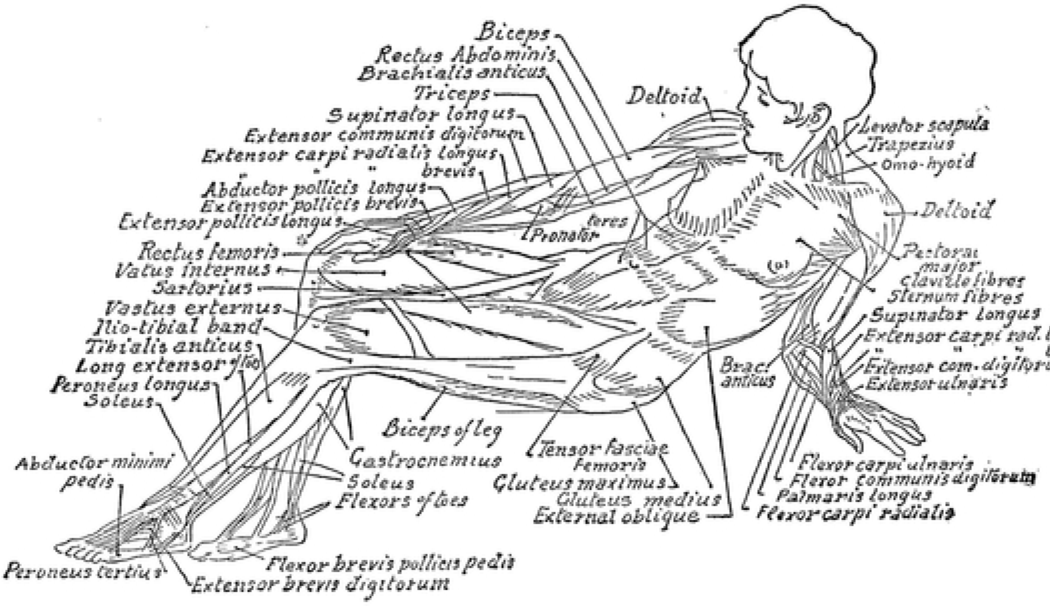
Thumb
Radius
Ulna
Supinator longus
Flexor ulnaris
Biceps
Deltoid
Triceps
Teres major
Patella
Femur
Tibia
Fibula
Erector spinae
Latissimus dorsi
External oblique
Rectus femoris
Vastus externus
Ilio-tibial band
Biceps of leg
Gastrocnemius
Tibialis anticus
Peroneus longus
Peroneus brevis
Soleus
Peroneus tertius
Peroneus longus
Biceps of leg
Gracilis
Sartorius
Vastus internus
Semi-tendinosus
Semi-membranosus
Gastrocnemius
Soleus
Tibialis posticus
Flexor longus digitorum



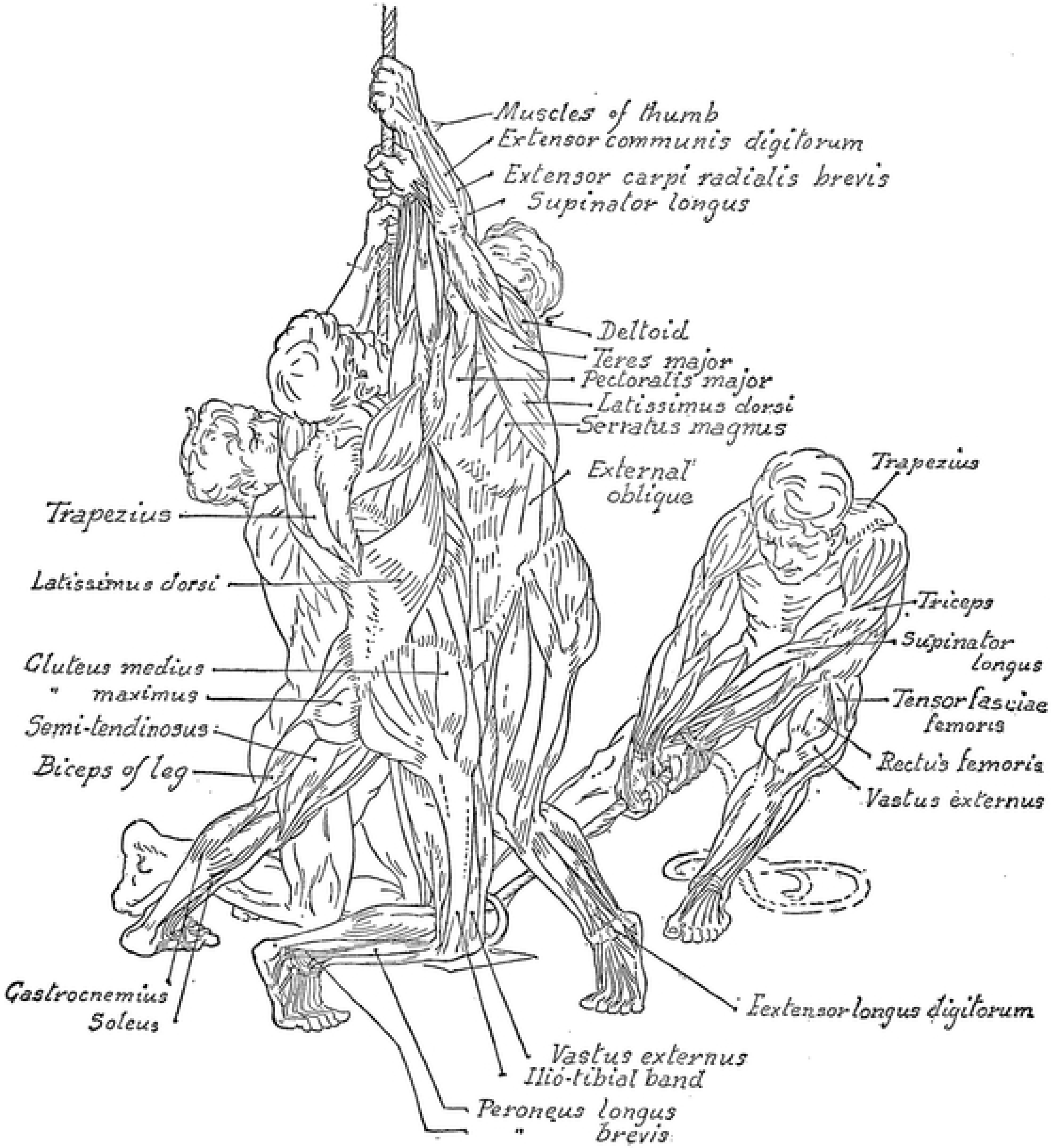
Appliction of anatomy to composition

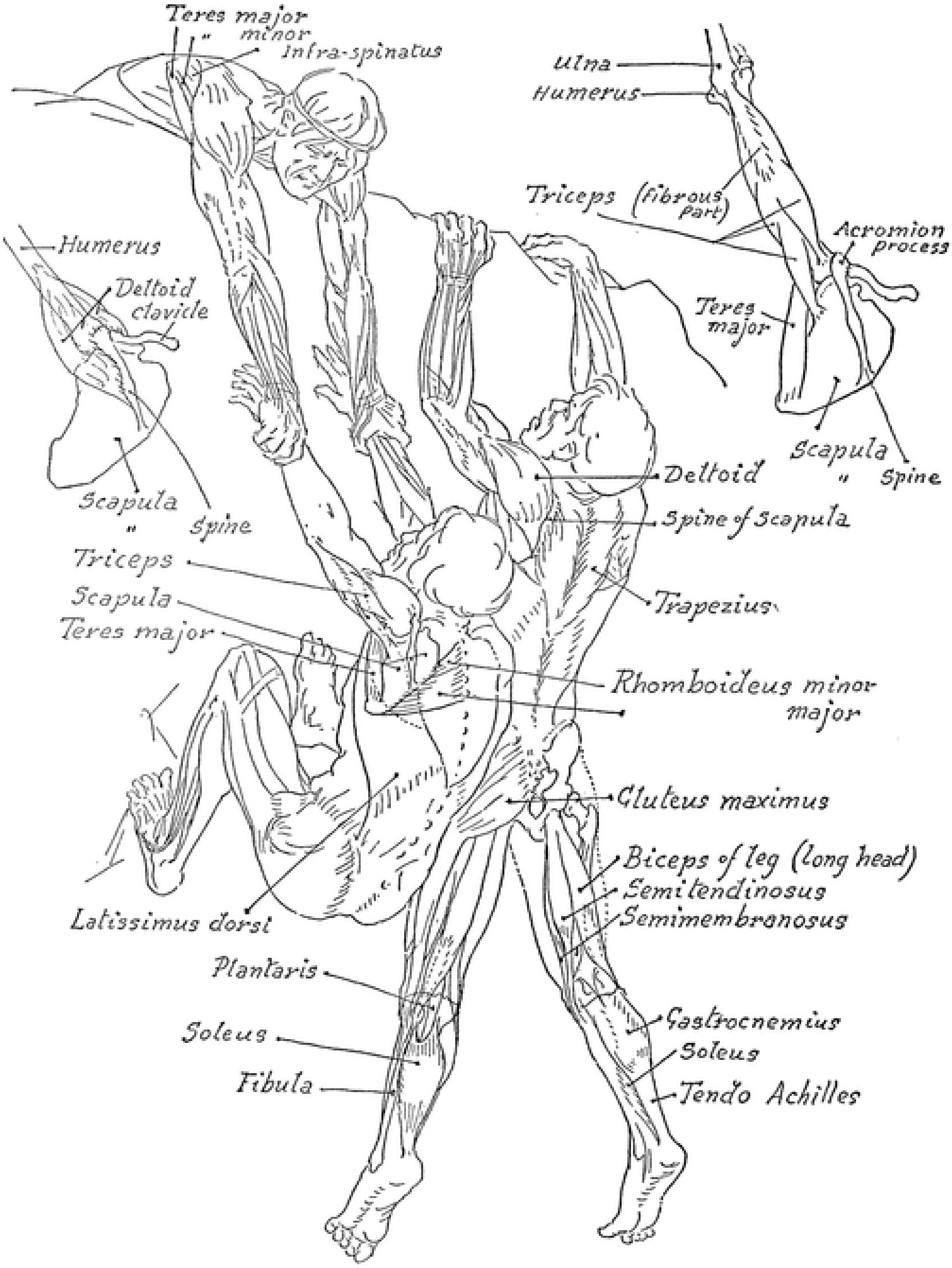

Brachialis anticus
Biceps
Triceps
Deltoid
Coraco-brachialis
Teres major
Latissimus dorsi
Serratus magnus
Rectus abdominis
External oblique
Tensor fasciae femoris
Iliacus & psoas
Pectineus
Adductor longus
" magnus
Rectus femoris
Vastus externus
Ilio-tibial band
Gastrocnemius
Peroneus longus
" brevis
Tibialis anticus
Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Pectoralis major
Vastus externus
Sartorius
Long extensor of toes
Long extensor of great toe
Poupart's ligament
Gracilis
Sartorius
Rectus femoris
Vastus externus
" internus
Richer's band
Patella
Tendon of sartorius
Tibia
Tibialis anticus
Gastrocnemius
Soleus
Peroneus longus
Long flexor of toes
Annular ligament
Infra-spinatus
Teres minor
Teres major
Deltoid
Triceps
Fat
Brachialis anticus
Biceps
Supinator longus
Anconeus
Extensor carpi rad. longus
Ex. carp. rad. brevis
Extensor communis digitorum
Ex. carpi ulnaris
Flexor "
Deltoid
Infra spinatus
Rhomboideus
Trapezius
Latissimus dorsi
External oblique
Gluteus medius
Tensor fasciae femoris
Vastus externus
Gastrocnemius
Soleus
Gluteus maximus

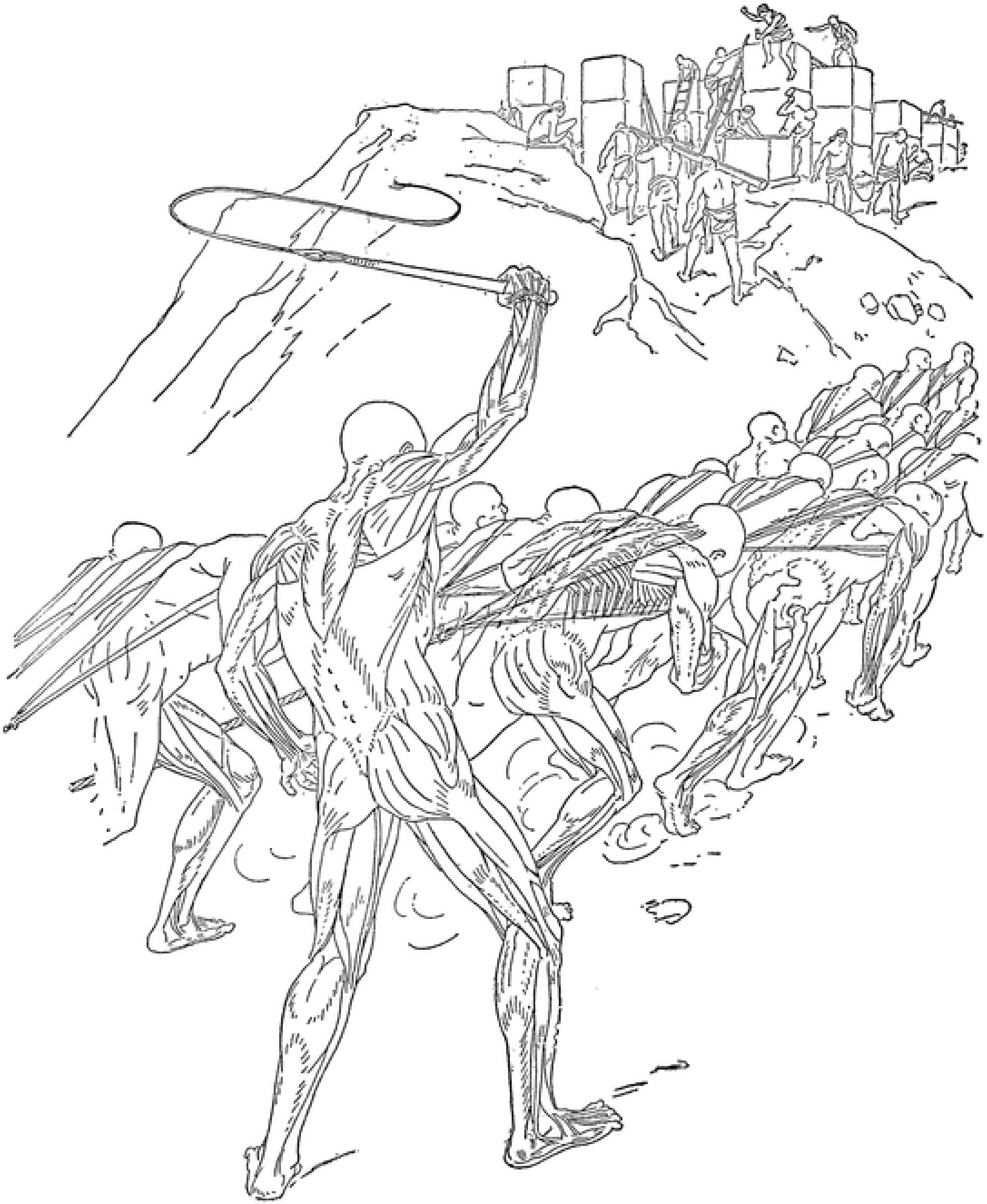


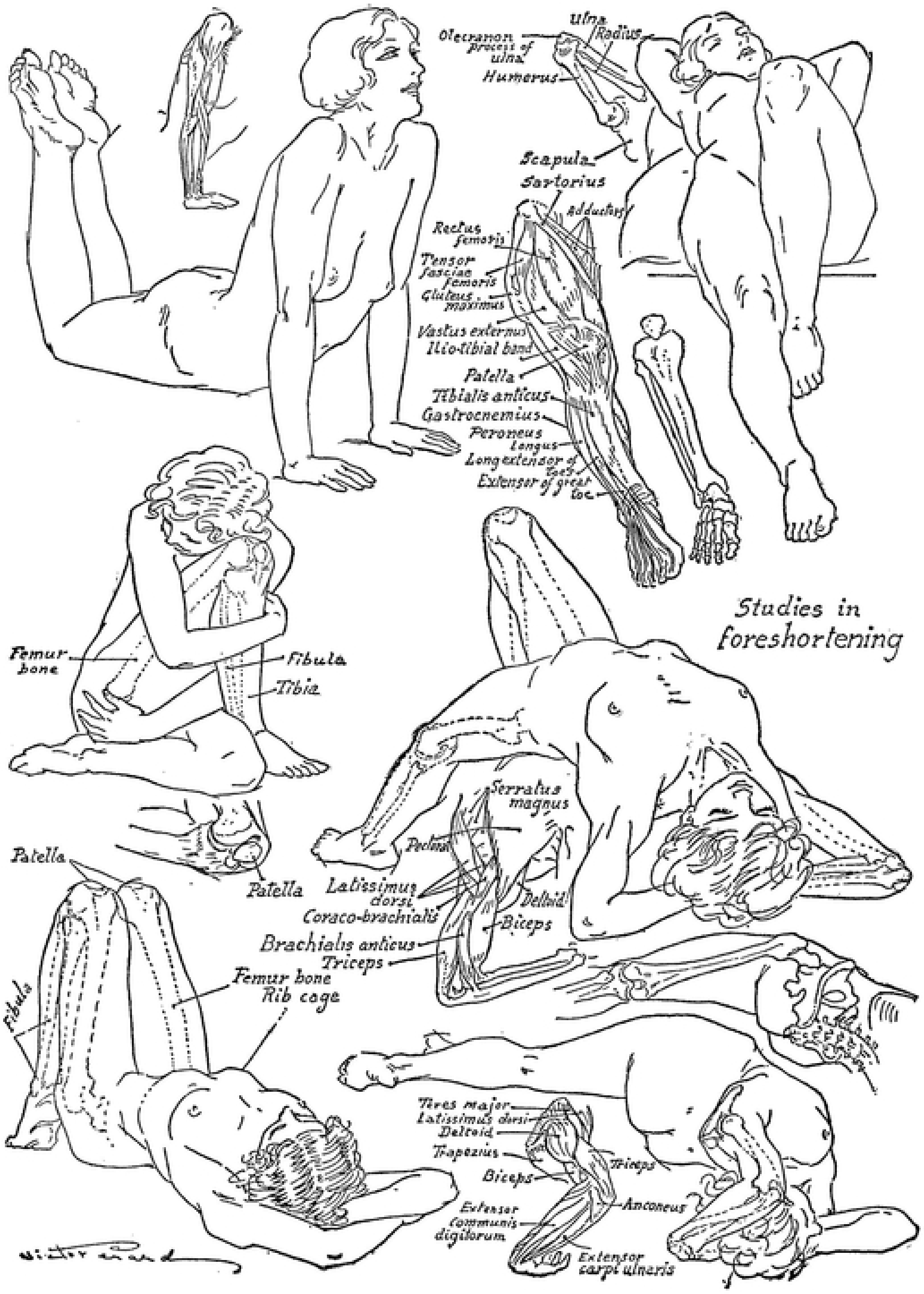


Biceps
Rectus Abdominis
Brachialis anticus
Triceps
Supinator longus
Extensor communis digitorum
Extensor carpi radialis longus
" " brevis
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Pronator teres
Rectus femoris
Vatus internus
Sartorius
Vastus externus
Ilio-tibial band
Tibialis anticus
Long extensor of toes
Peroneus longus
Soleus
Biceps of leg
Abductor minimi pedis
Gastrocnemius
Soleus
Flexors of toes
Peroneus tertius
Extensor brevis digitorum
Flexor brevis pollicis pedis
Tensor fasciae femoris
Gluteus maximus
Gluteus medius
External oblique
Deltoid
Levator scapula
Trapezius
Omo-hyoid
Deltoid
Pectoral major
Clavicle fibres
Sternum fibres
Supinator longus
Extensor carpi rad. long.
" " " brev.
Extensor com. digitorum
Extensor ulnaris
Brac. anticus
Flexor carpi ulnaris
Flexor communis digitorum
Palmaris longus
Flexor carpi radialis


Muscles of thumb
Extensor communis digitorum
Extensor carpi radialis brevis
Supinator longus
Deltoid
Teres major
Pectoralis major
Latissimus dorsi
Serratus magnus
External oblique
Trapezius
Trapezius
Latissimus dorsi
Triceps
Supinator longus
Cluteus medius
" maximus
Tensor fasciae femoris
Semi-tendinosus
Rectus femoris
Biceps of leg
Vastus externus
Gastrocnemius
Soleus
Eextensor longus digitorum
Vastus externus
Ilio-tibial band
Peroneus longus
" brevis

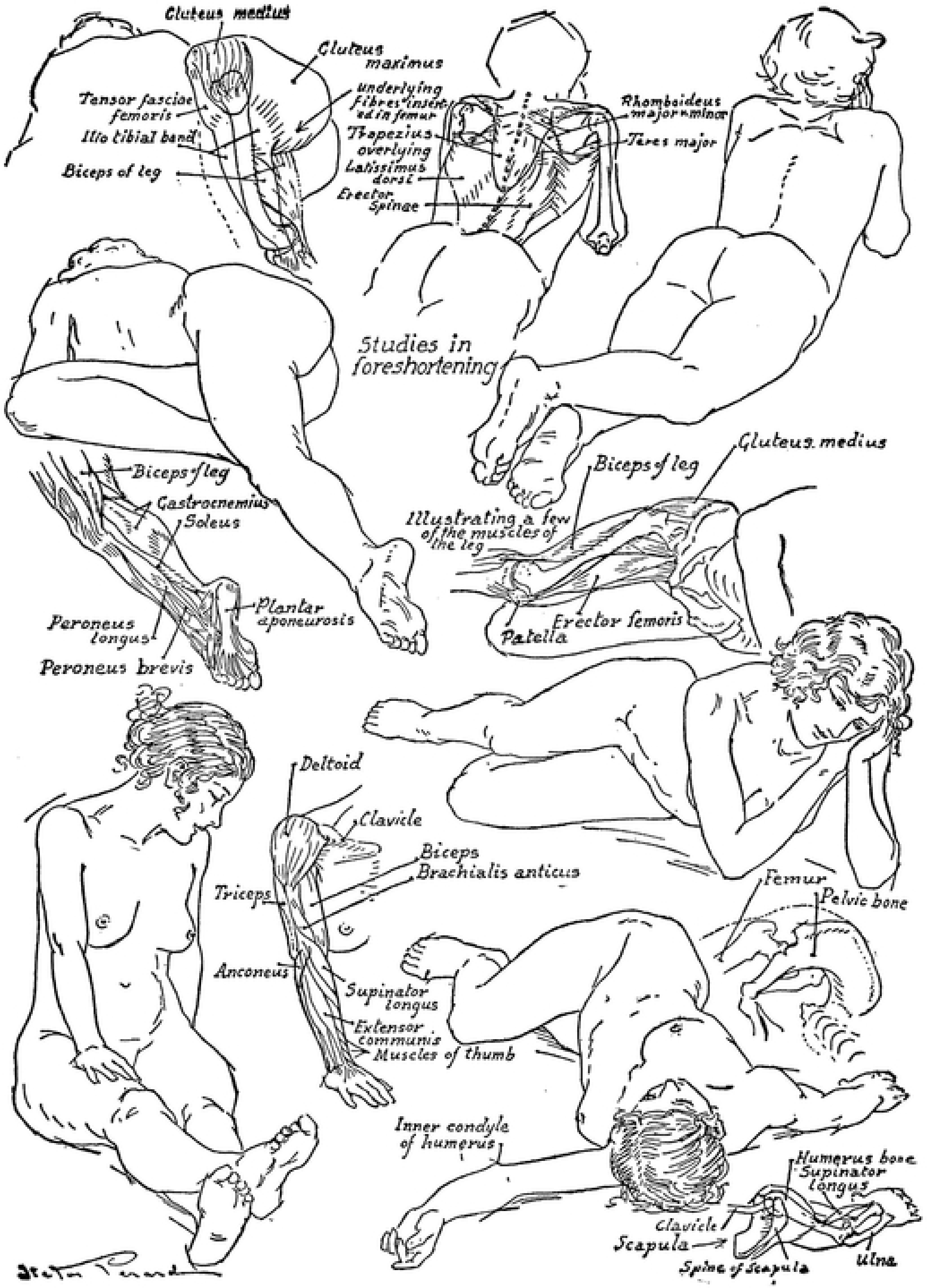

Teres major
" minor
Infra-spinatus
Ulna
Humerus
Triceps (fibrous part)
Acromion process
Humerus
Deltoid
clavicle
Teres major
Scapula
" Spine
Deltoid
Scapula
" Spine
Spine of Scapula
Triceps
Trapezius
Scapula
Teres major
Rhomboideus minor
major
Gluteus maximus
Biceps of leg (long head)
Semitendinosus
Semimembranosus
Latissimus dorsi
Plantaris
Gastrocnemius
Soleus
Soleus
Fibula
Tendo Achilles

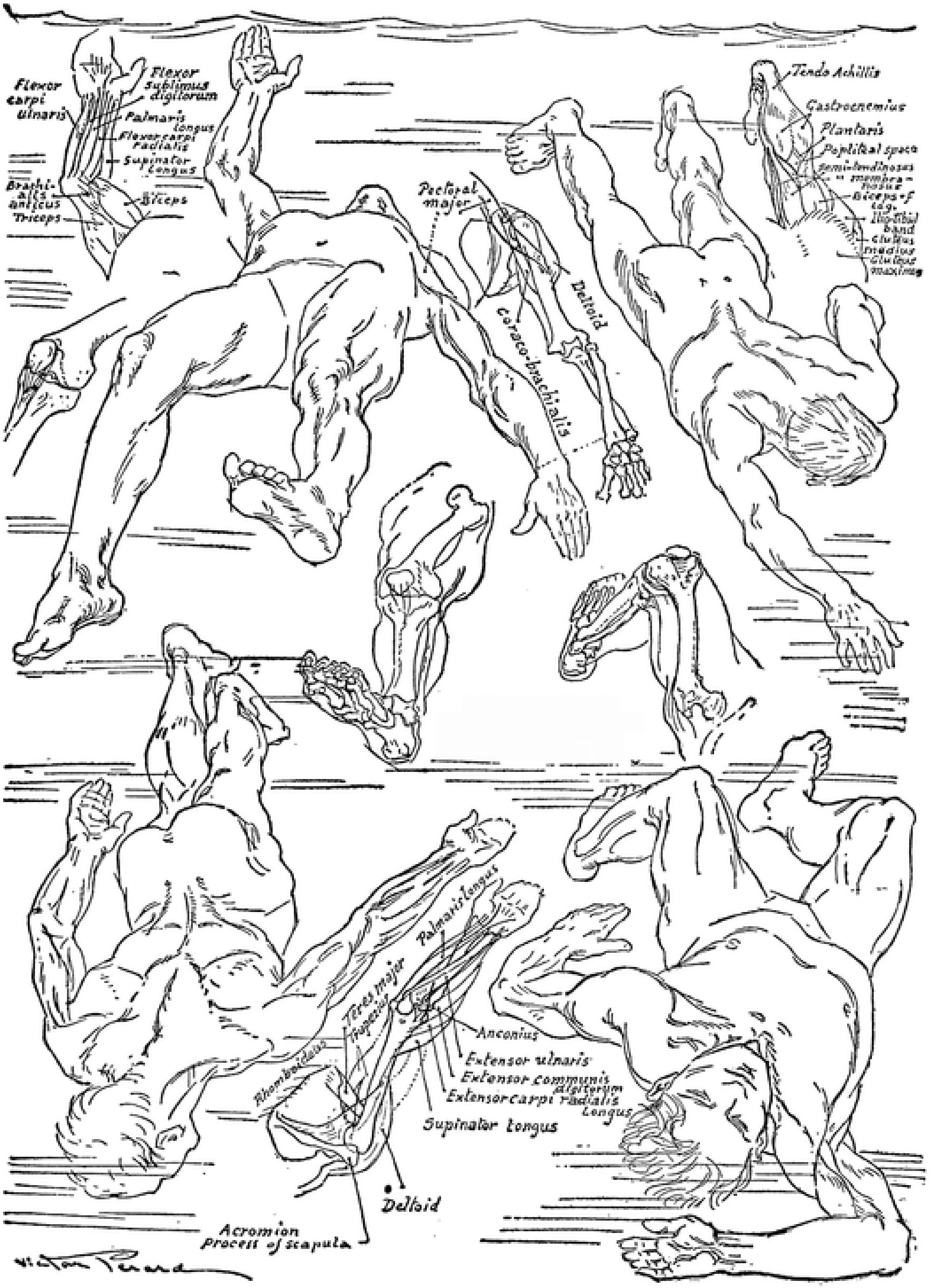




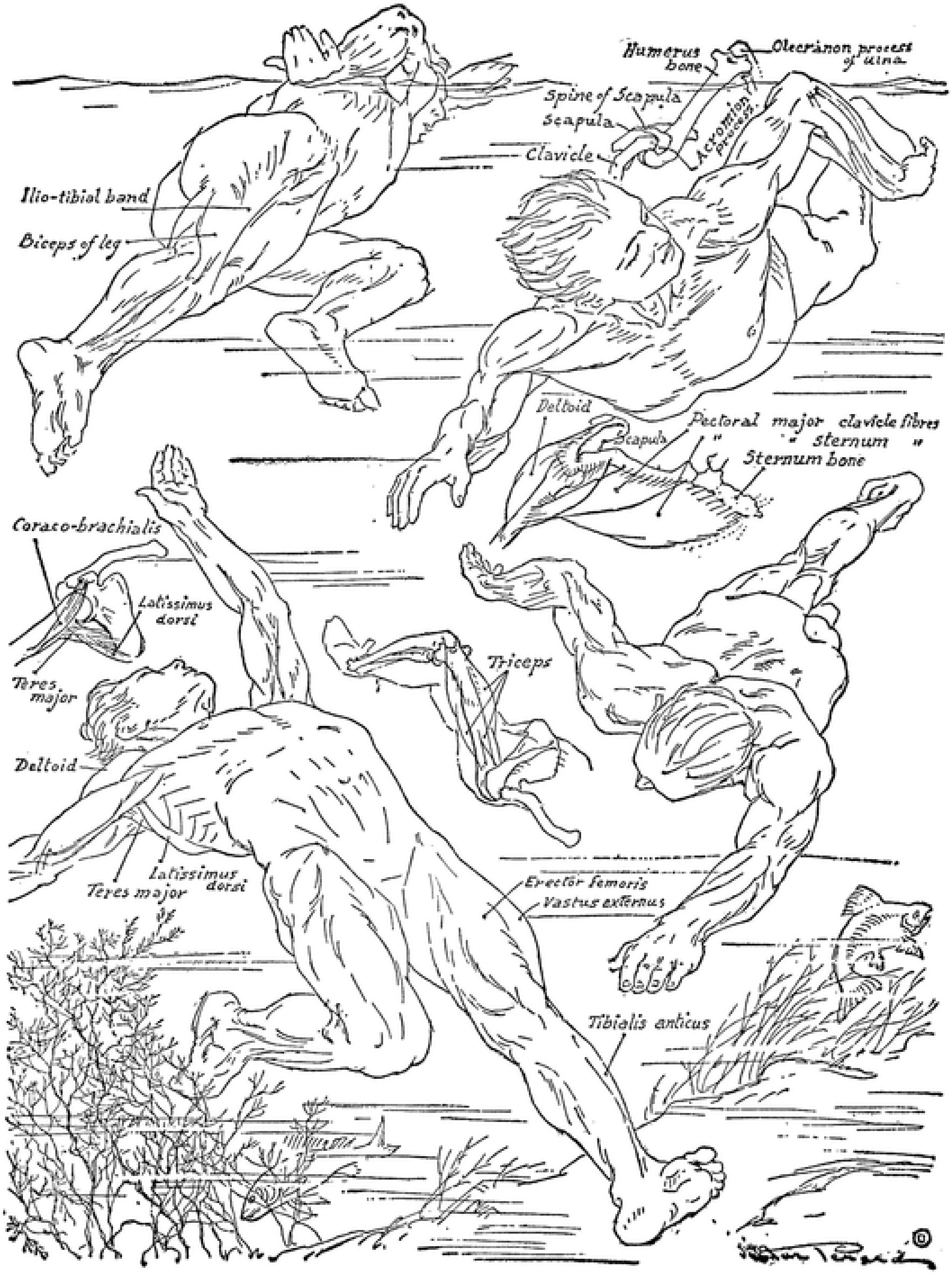
Studies in foreshortening

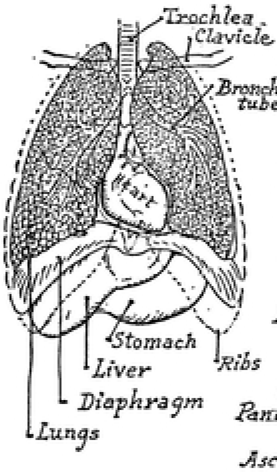
Olecranon process of ulna
Ulna
Radius
Humerus
Scapula
Sartorius
Adductors
Rectus femoris
Tensor fasciae femoris
Gluteus maximus
Vastus externus
Ilio-tibial band
Patella
Tibialis anticus
Gastrocnemius
Peroneus longus
Long extensor of toes
Extensor of great toe
Femur bone
Fibula
Tibia
Patella
Patella
Serratus magnus
Pectora
Latissimus dorsi
Coraco-brachialis
Deltoid
Biceps
Brachialis anticus
Triceps
Fibula
Femur bone
Rib cage
Teres major
Latissimus dorsi
Deltoid
Trapezius
Biceps
Triceps
Anconeus
Extensor communis digitorum
Extensor carpi ulnaris

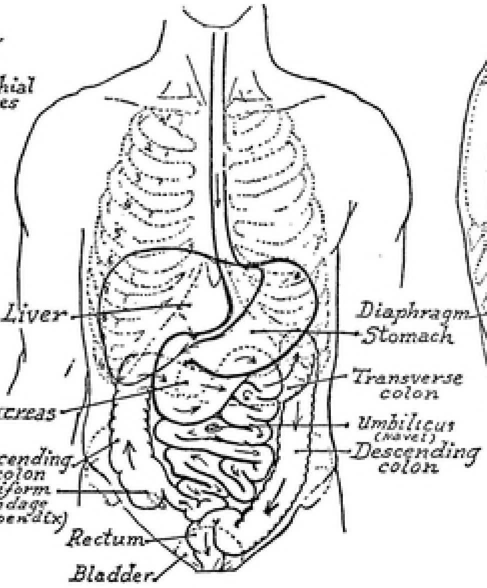

Gluteus medius
Gluteus maximus
Tensor fasciae femoris
Ilio tibial band
Biceps of leg
underlying fibres inserted in femur
Trapezius overlying
Latissimus dorsi
Erector Spinae
Rhomboideus major & minor
Teres major
Studies in foreshortening
Biceps of leg
Gastrocnemius
Soleus
Plantar aponeurosis
Peroneus longus
Peroneus brevis
Gluteus medius
Biceps of leg
Illustrating a few of the muscles of the leg
Erector femoris
Patella
Deltoid
Clavicle
Biceps
Brachialis anticus
Triceps
Anconeus
Supinator longus
Extensor communis
Muscles of thumb
Femur
Pelvic bone
Inner condyle of humerus
Humerus bone
Supinator longus
Clavicle
Scapula
Spine of Scapula
Ulna


Flexor carpi ulnaris
Flexor sublimus digitorum
Palmaris longus
Flexor carpi radialis
Supinator longus
Brachialis anticus
Biceps
Triceps
Pectoral major
Deltoid
Coraco-brachialis
Tendo Achillis
Gastrocnemius
Plantaris
Popliteal space
Semi-tendinosus
" membranosus
Biceps-f leg.
Ilio-tibial band
Gluteus medius
Gluteus maximus
Palmaris longus
Teres major
Trapezius
Rhomboideus
Anconius
Extensor ulnaris
Extensor communis digitorum
Extensor carpi radialis longus
Supinator longus
Deltoid
Acromion Process of scapula
Victor Perard

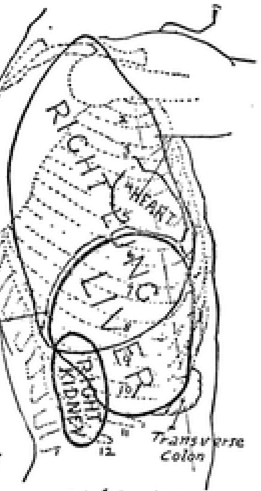
Studies in foreshortening


Humerus bone
Olecranon process of ulna
Spine of Scapula
Scapula
Acromion process
Clavicle
Ilio-tibial band
Biceps of leg
Deltoid
Scapula
Pectoral major clavicle fibres
" " Sternum "
Sternum bone
Coraco-brachialis
Latissimus dorsi
Teres major
Triceps
Deltoid
Latissimus dorsi
Teres major
Erector femoris
Vastus externus
Tibialis anticus

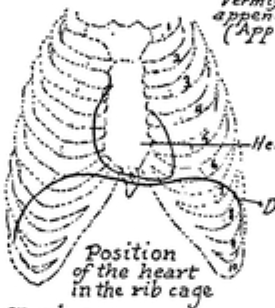

Trochlea
Clavicle
Bronchial tubes
Heart
Stomach
Ribs
Liver
Diaphragm
Lungs


Liver
Diaphragm
Stomach
Transverse colon
Pancreas
Umbilicus (navel)
Descending colon
Ascending colon
Vermiform appendage (Appendix)
Rectum
Bladder

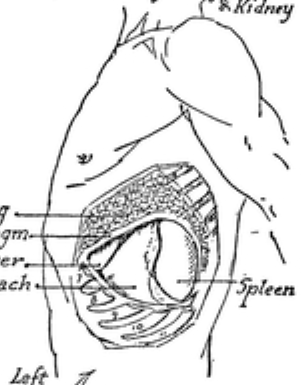
Front view illustrating position of digestive tract


RIGHT LUNG
HEART
LIVER
RIGHT KIDNEY
Transverse Colon
10
11
12

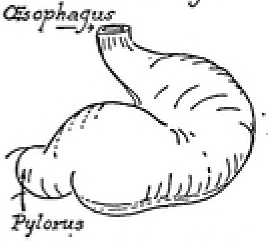
Right side showing relative position of lung, liver & Kidney


Heart
Diaphragm
1
2
3
4
5
6

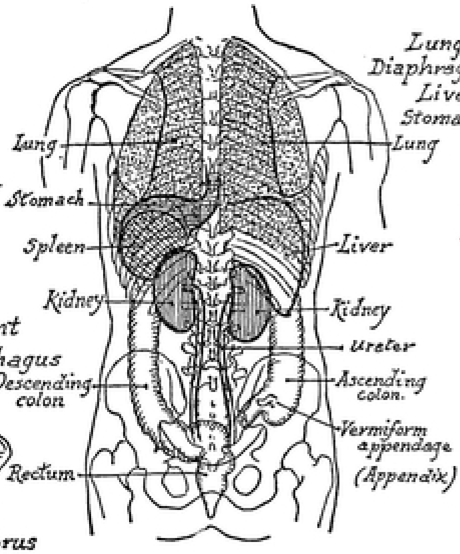
Position of the heart in the rib cage

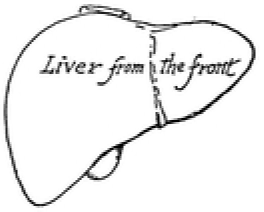

Lung
Diaphragm
Liver
Stomach
Spleen

Left side

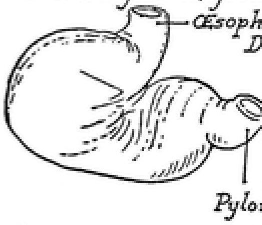

Œsophagus
Pylorus

Stomach from the front


Lung
Lung
Stomach
Spleen
Liver
Kidney
Kidney
Ureter
Descending colon
Ascending colon
Vermiform appendage (Appendix)
Rectum

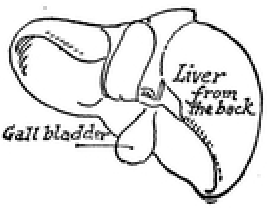


Liver from the front

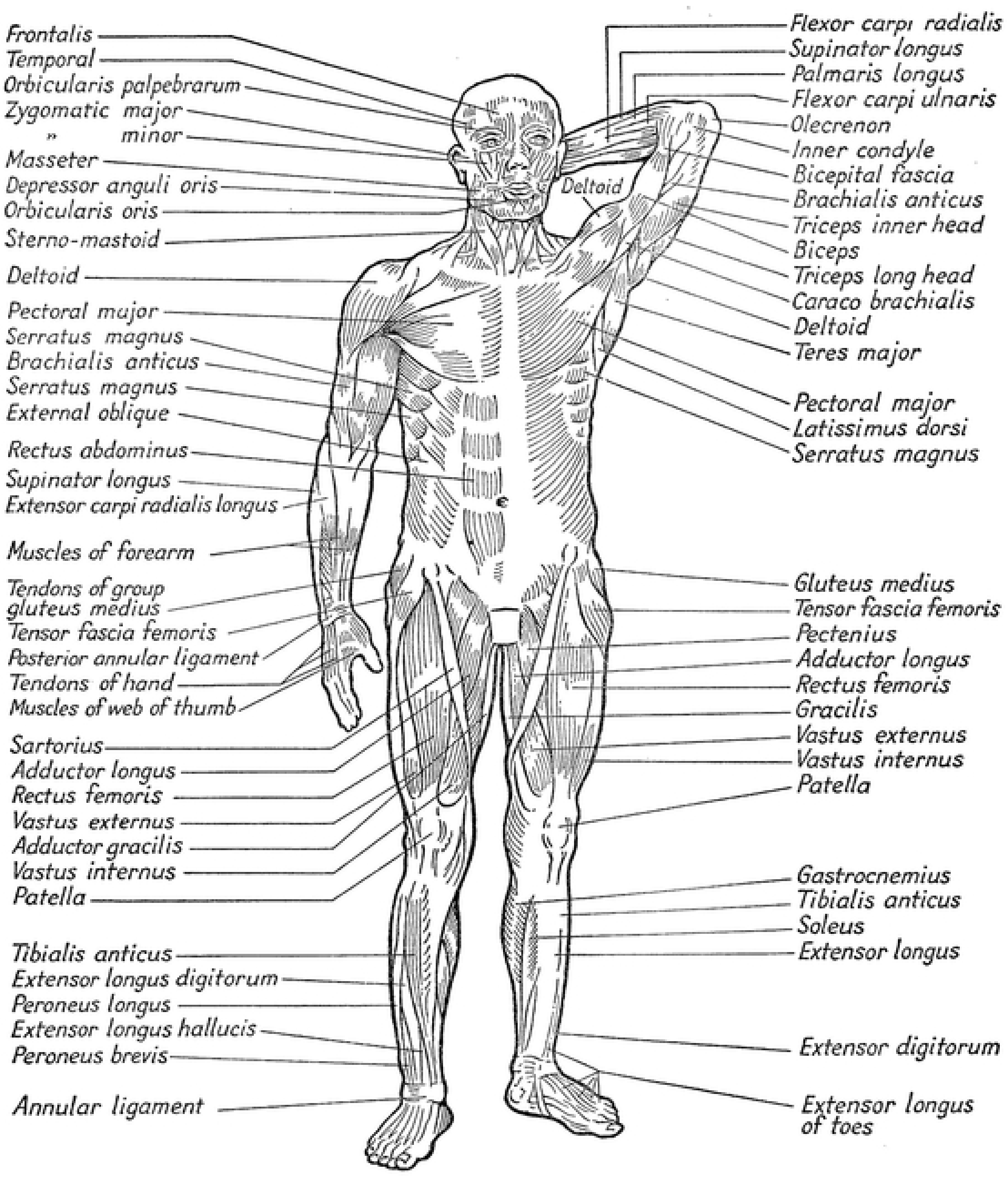

Œsophagus
Pylorus

Stomach from the back

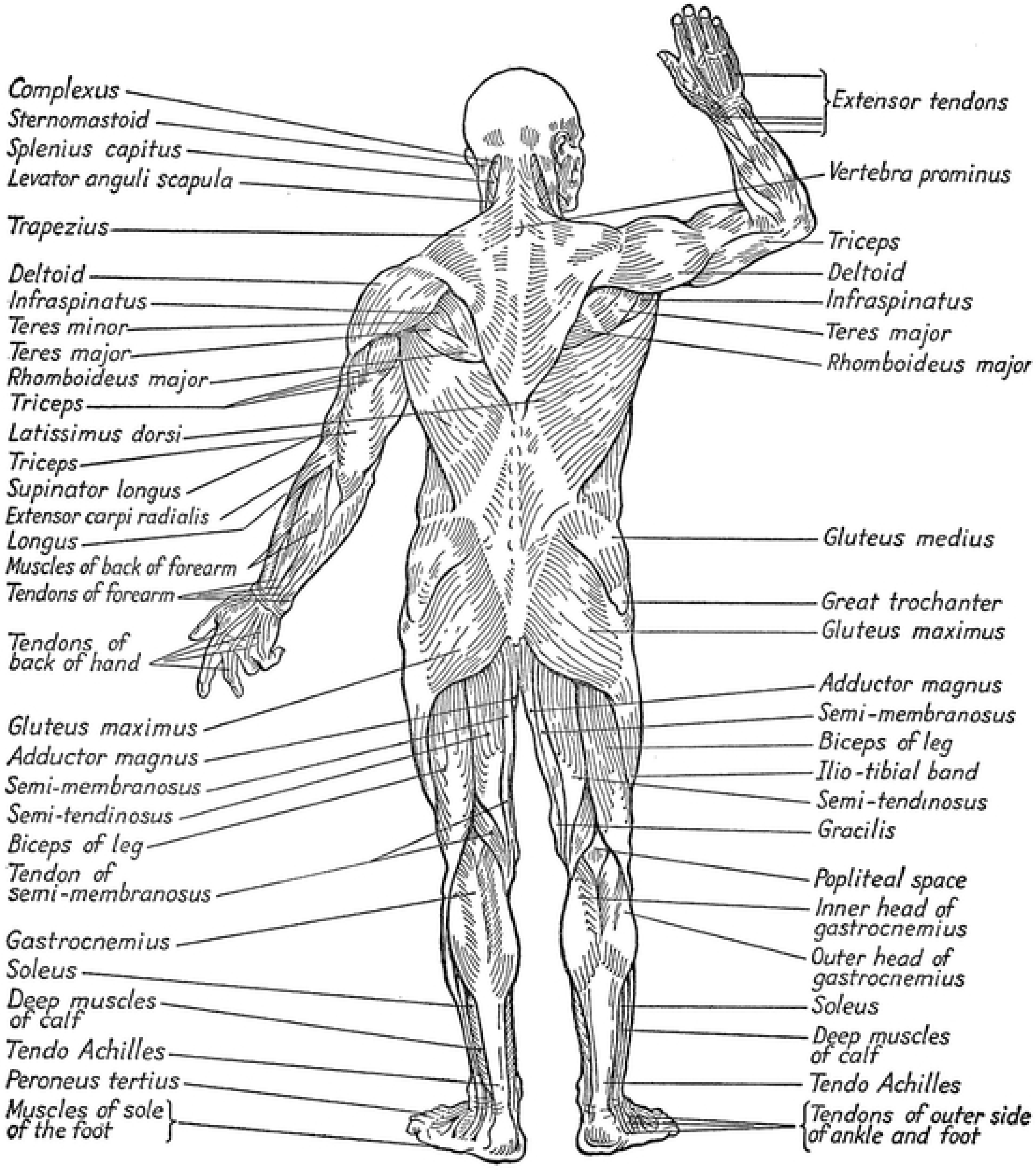
Back view Illustrating relative positions of internal organs


Gall bladder

Liver from the back


Frontalis
Temporal
Orbicularis palpebrarum
Zygomatic major
" minor
Masseter
Depressor anguli oris
Orbicularis oris
Sterno-mastoid
Deltoid
Pectoral major
Serratus magnus
Brachialis anticus
Serratus magnus
External oblique
Rectus abdominus
Supinator longus
Extensor carpi radialis longus
Muscles of forearm
Tendons of group gluteus medius
Tensor fascia femoris
Posterior annular ligament
Tendons of hand
Muscles of web of thumb
Sartorius
Adductor longus
Rectus femoris
Vastus externus
Adductor gracilis
Vastus internus
Patella
Tibialis anticus
Extensor longus digitorum
Peroneus longus
Extensor longus hallucis
Peroneus brevis
Annular ligament
Deltoid
Flexor carpi radialis
Supinator longus
Palmaris longus
Flexor carpi ulnaris
Olecrenon
Inner condyle
Bicepital fascia
Brachialis anticus
Triceps inner head
Biceps
Triceps long head
Caraco brachialis
Deltoid
Teres major
Pectoral major
Latissimus dorsi
Serratus magnus
Gluteus medius
Tensor fascia femoris
Pectenius
Adductor longus
Rectus femoris
Gracilis
Vastus externus
Vastus internus
Patella
Gastrocnemius
Tibialis anticus
Soleus
Extensor longus
Extensor digitorum
Extensor longus of toes

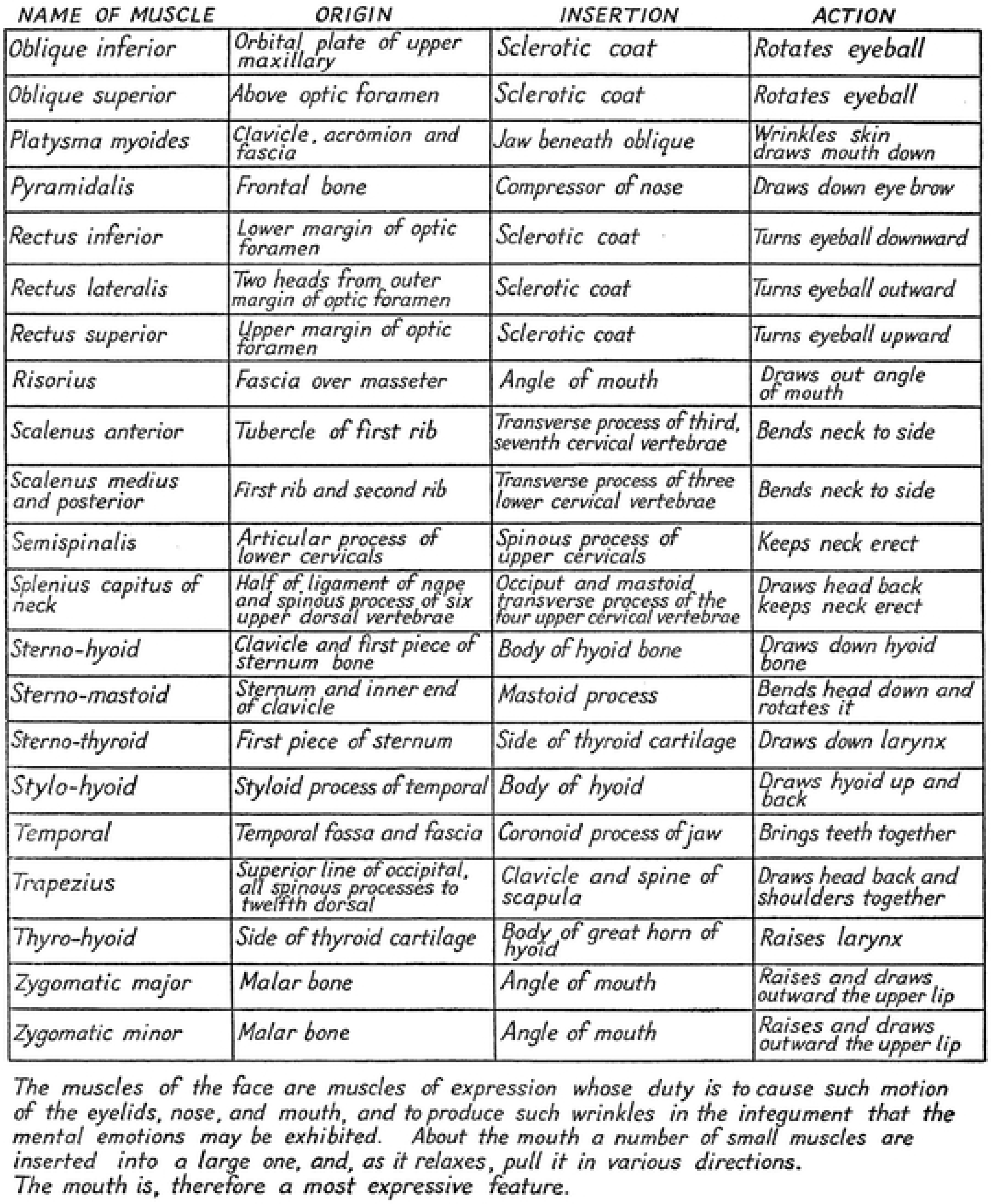
MUSCLES OF BODY (front view)


Complexus
Sternomastoid
Splenius capitus
Levator anguli scapula
Trapezius
Deltoid
Infraspinatus
Teres minor
Teres major
Rhomboideus major
Triceps
Latissimus dorsi
Triceps
Supinator longus
Extensor carpi radialis
Longus
Muscles of back of forearm
Tendons of forearm
Tendons of back of hand
Gluteus maximus
Adductor magnus
Semi-membranosus
Semi-tendinosus
Biceps of leg
Tendon of semi-membranosus
Gastrocnemius
Soleus
Deep muscles of calf
Tendo Achilles
Peroneus tertius
Muscles of sole of the foot
Extensor tendons
Vertebra prominus
Triceps
Deltoid
Infraspinatus
Teres major
Rhomboideus major
Gluteus medius
Great trochanter
Gluteus maximus
Adductor magnus
Semi-membranosus
Biceps of leg
Ilio-tibial band
Semi-tendinosus
Gracilis
Popliteal space
Inner head of gastrocnemius
Outer head of gastrocnemius
Soleus
Deep muscles of calf
Tendo Achilles
Tendons of outer side of ankle and foot

MUSCLES OF BODY (back view)

Compend of Anatomy Muscles of the head, face and neck

NAME OF MUSCLE	ORIGIN	INSERTION	ACTION
Auricular Posterior and superior	Aponeurosis	Helix of ear	Moves scalp
Buccinator	Processes of both maxillary bones	Orbicular muscle of mouth	Presses cheek against teeth
Complexus	Transverse process of first three dorsals and articular processes of last three cervical vertebrae	Occipital below curved line	Draws head backwards
Compressor naris	Superior maxilla	Opposite muscle	Narrows nostrils
Depressor anguli oris	External oblique line of lower maxilla	Angle of mouth	Draws down angle of mouth
Depressor labii inferior	External oblique line at lower maxillary	Lower lip	Draws lower lip downward
Digastric anterior and posterior	Posterior surface of lower jaw and the mastoid process	Hyoid bone	Depresses jaw raises hyoid bone and tongue
External rectus	Two heads from outer margin of optic foramen	Sclerotic coat	Turns eyeball outward
Frontalis	Nasal and internal angular process of frontal bone	Aponeurosis scalp over bone of forehead	Wrinkles forehead and raises eyebrows
Inferior constrictor	Cricoid and thyroid cartilage	Posterior medium line	Contracts caliber of pharynx
Levator menti	Mandible	Integument of chin	Raises the chin
Levator palpebrarum superioris	Lesser wing of sphenoid	Upper tarsal cartilage	Lifts upper lid of eye
Levator scapula	Transverse process of 4 upper cervical vertebrae	Border of scapula below upper angle	Raises upper angle of scapula
Levator labii superioris	Nasal process of upper maxillary	Nasal cartilage and lip	Draws up lip and opens nostrils
Levator labii superioris alaeque nasi	Root of nose and frontalis muscle	Wing of nose and upper lip	Dilates nostril and lifts upper lip
Levator orbicularis oris	Lower margin of orbit	Upper lip	Raises lip
Longus capitis	Occipital bone	3rd., 4th., 5th., 6th., 7th., cervical vertebrae	Draws head to the side
Longus colli	Base of skull	Upper four thoracic vertebrae	Draws head back
Masseter	Zygomatic arch	Ramus and angle of jaw	Brings molar teeth together
Middle constrictor	Both horns of hyoid stylo-hyoid and ligament	Posterior median line	Contracts caliber of pharynx
Mylo-hyoid	Mylo-hyoid ridge of lower jaw	Body of hyoid and middle line	Draws hyoid up and forward
Occipital	Superior curved line of occiput	Aponeurosis of scalp	Moves scalp
Omo-hyoid	Upper border of scapula	Body of hyoid	Draws hyoid bone downward
Orbicularis palpebrarum (eye)	Internal margin of orbit	Outer margin of orbit	Closes eyelids
Orbicularis oris (mouth)	Nasal septum and bone below lower maxillary	Forms bulk of lip	Closes the mouth

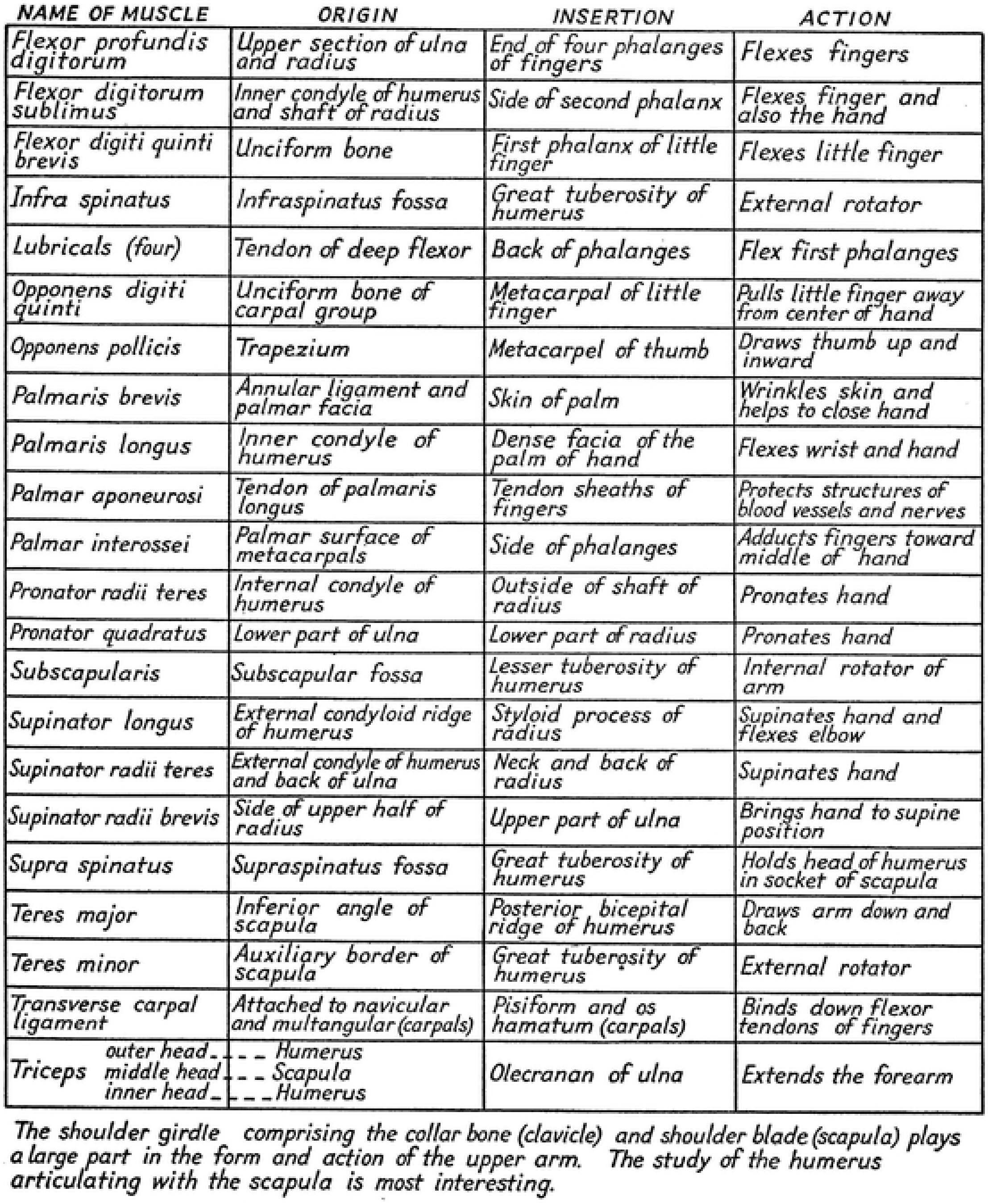


NAME OF MUSCLE	ORIGIN	INSERTION	ACTION
Oblique inferior	Orbital plate of upper maxillary	Sclerotic coat	Rotates eyeball
Oblique superior	Above optic foramen	Sclerotic coat	Rotates eyeball
Platysma myoides	Clavicle, acromion and fascia	Jaw beneath oblique	Wrinkles skin draws mouth down
Pyramidalis	Frontal bone	Compressor of nose	Draws down eye brow
Rectus inferior	Lower margin of optic foramen	Sclerotic coat	Turns eyeball downward
Rectus lateralis	Two heads from outer margin of optic foramen	Sclerotic coat	Turns eyeball outward
Rectus superior	Upper margin of optic foramen	Sclerotic coat	Turns eyeball upward
Risorius	Fascia over masseter	Angle of mouth	Draws out angle of mouth
Scalenus anterior	Tubercle of first rib	Transverse process of third, seventh cervical vertebrae	Bends neck to side
Scalenus medius and posterior	First rib and second rib	Transverse process of three lower cervical vertebrae	Bends neck to side
Semispinalis	Articular process of lower cervicals	Spinous process of upper cervicals	Keeps neck erect
Splenius capitus of neck	Half of ligament of nape and spinous process of six upper dorsal vertebrae	Occiput and mastoid transverse process of the four upper cervical vertebrae	Draws head back keeps neck erect
Sterno-hyoid	Clavicle and first piece of sternum bone	Body of hyoid bone	Draws down hyoid bone
Sterno-mastoid	Sternum and inner end of clavicle	Mastoid process	Bends head down and rotates it
Sterno-thyroid	First piece of sternum	Side of thyroid cartilage	Draws down larynx
Stylo-hyoid	Styloid process of temporal	Body of hyoid	Draws hyoid up and back
Temporal	Temporal fossa and fascia	Coronoid process of jaw	Brings teeth together
Trapezius	Superior line of occipital, all spinous processes to twelfth dorsal	Clavicle and spine of scapula	Draws head back and shoulders together
Thyro-hyoid	Side of thyroid cartilage	Body of great horn of hyoid	Raises larynx
Zygomatic major	Malar bone	Angle of mouth	Raises and draws outward the upper lip
Zygomatic minor	Malar bone	Angle of mouth	Raises and draws outward the upper lip

The muscles of the face are muscles of expression whose duty is to cause such motion of the eyelids, nose, and mouth, and to produce such wrinkles in the integument that the mental emotions may be exhibited. About the mouth a number of small muscles are inserted into a large one, and, as it relaxes, pull it in various directions.
The mouth is, therefore a most expressive feature.

Muscles of arm and hand

NAME OF MUSCLE	ORIGIN	INSERTION	ACTION
Abductor pollicis longus	Radius and ulna	Head of metacarpal of thumb	Extends thumb
Abductor pollicis brevis	Trapezium	First phalanx of thumb	Draws thumb away from hand
Abductor digiti quinti (fifth)	Pisiform bone	First phalanx of little finger	Draws finger away from the rest
Adductor pollicis oblique head	Carpals and first and second metacarpals	First metacarpal of thumb	Draws thumb to oppose fingers
Adductor pollicis transverse head	Third metacarpal	First phalanx	Draws thumb to oppose fingers
Anconeus	Posterior surface of external condyle of humerus bone	Olecanon and posterior part of ulna	Extends forearm
Annular ligament posterior and anterior	Surrounds wrist	Holds tendons down	Keeps extensor and flexor tendons in place
Biceps	Coracoid process and top of glenoid cavity	Back of tuberosity of radius bone	Flexes and supinates forearm
Brachialis anticus	Lower part of front of humerus	Base of coronoid process of ulna	Flexes forearm
Coraco-brachialis	Coracoid process of scapula	Inside of shaft of humerus	Draws arm forward and inward
Deltoid	Clavicle and acromion process and spine of scapula	Outside of shaft of humerus bone	Raises arm to side back and front
Dorsal interossei (four)	Sides of metacarpal bones	Back of phalanges	Abducts fingers from middle line of middle finger
Extensor carpi radialis brevis	Outer condyle of humerus	Inner side of metacarpal bone of middle finger	Extends and lifts hand up
Extensor carpi radialis longus	External condyloid ridge of humerus	Base of second metacarpal	Extends wrist
Extensor carpi ulnaris	External condyle of humerus	Base of metacarpal of little finger	Extends hand toward ulnar side
Extensor communis digitorum	Outer condyle of humerus	Last phalanges of four fingers	Extends fingers
Extensor digitorum quinti communis	External condyle of humerus	Phalanx of little finger	Extends little finger
Extensor of index	Lower third of ulna	End of phalanx of index	Extends index
Extensor pollicis brevis	Back of ulna and interosseous membrane	Base of second phalanx of thumb	Extends thumb
Extensor pollicis longus	Back of radius	Base of metacarpal of thumb	Extends thumb
Extensor radialis brevis	External condyle ridge of humerus	Base of third metacarpal (middle finger)	Extends wrist
Flexor carpi ulnaris	Internal condyle of humerus	Base of metacarpal and pisiform bone	Flexes wrist
Flexor carpi radialis longus	Inner condyle of humerus	Metacarpal bone of index finger	Flexes wrist and bends hand up
Flexor policis brevis	Trapezium and os magnus and three metacarpals	First phalanx	Flexes thumb
Flexor policis longus	Shaft of upper half of radius	Last phalanx of thumb	Flexes thumb



NAME OF MUSCLE	ORIGIN	INSERTION	ACTION
Flexor profundis digitorum	Upper section of ulna and radius	End of four phalanges of fingers	Flexes fingers
Flexor digitorum sublimus	Inner condyle of humerus and shaft of radius	Side of second phalanx	Flexes finger and also the hand
Flexor digiti quinti brevis	Unciform bone	First phalanx of little finger	Flexes little finger
Infra spinatus	Infraspinatus fossa	Great tuberosity of humerus	External rotator
Lubricals (four)	Tendon of deep flexor	Back of phalanges	Flex first phalanges
Opponens digiti quinti	Unciform bone of carpal group	Metacarpal of little finger	Pulls little finger away from center of hand
Opponens pollicis	Trapezium	Metacarpel of thumb	Draws thumb up and inward
Palmaris brevis	Annular ligament and palmar facia	Skin of palm	Wrinkles skin and helps to close hand
Palmaris longus	Inner condyle of humerus	Dense facia of the palm of hand	Flexes wrist and hand
Palmar aponeurosi	Tendon of palmaris longus	Tendon sheaths of fingers	Protects structures of blood vessels and nerves
Palmar interossei	Palmar surface of metacarpals	Side of phalanges	Adducts fingers toward middle of hand
Pronator radii teres	Internal condyle of humerus	Outside of shaft of radius	Pronates hand
Pronator quadratus	Lower part of ulna	Lower part of radius	Pronates hand
Subscapularis	Subscapular fossa	Lesser tuberosity of humerus	Internal rotator of arm
Supinator longus	External condyloid ridge of humerus	Styloid process of radius	Supinates hand and flexes elbow
Supinator radii teres	External condyle of humerus and back of ulna	Neck and back of radius	Supinates hand
Supinator radii brevis	Side of upper half of radius	Upper part of ulna	Brings hand to supine position
Supra spinatus	Supraspinatus fossa	Great tuberosity of humerus	Holds head of humerus in socket of scapula
Teres major	Inferior angle of scapula	Posterior bicepital ridge of humerus	Draws arm down and back
Teres minor	Auxiliary border of scapula	Great tuberosity of humerus	External rotator
Transverse carpal ligament	Attached to navicular and multangular (carpals)	Pisiform and os hamatum (carpals)	Binds down flexor tendons of fingers
Triceps outer head middle head inner head	Humerus Scapula Humerus	Olecranan of ulna	Extends the forearm

The shoulder girdle comprising the collar bone (clavicle) and shoulder blade (scapula) plays a large part in the form and action of the upper arm. The study of the humerus articulating with the scapula is most interesting.

Muscles of leg and foot

NAME OF MUSCLE	ORIGIN	INSERTION	ACTION
Abductor pollicis pedis (big toe)	Inner tubercle of os calcis	First phalanx of big toe	Draws big toe away from others
Abductor minimi pedis (little toe)	Outer tubercle of os calcis	First phalanx of little toe	Draws toe away from others
Adductor brevis	Ramus of pubes	Upper part of rough line of femur	Flexes and draws thigh inward
Adductor hallucis oblique head (big toe)	Os calcis	Second phalanx of big toe	Draws big toes toward the others
Adductor longus	Front of pubes	Middle of rough line of femur	Flexes and draws thigh inward
Adductor magnus	Ramus of pubes and of ischium	Entire length of rough line of femur	Draws thigh inward
Biceps of leg long and short head	Tuberosity of ischium outer bifurcation of rough line of femur	Head of fibula	Flexes leg and rotates it outward
Extensor of big toe (Hallucis)	Middle of shaft of fibula	Last phalanx of great toe	Extends toe
Extensor brevis digitorum pedis	Outer side of os calcis	First phalanx of big toe and tendons of long extensors	Extends toes
Extensor longus digitorum communis	Head of tibia and shaft of fibula	Second and third phalanges of toes	Extends toes
Flexor brevis digitorum pedis	Inner tubercle of os calcis and plantar fascia	Second phalanges of toes	Flexes toes
Flexor brevis pollicis pedis (big toe)	Cuboid	Base of first phalanx of big toe	Flexes big toe
Flexor brevis minimi digiti	Base of 5th. metatarsal	Base of first phalanx of little toe	Flexes little toe
Flexor longus digitorum pedis	Shaft of tibia	Last phalanges of toes	Flexes toes
Flexor hallucis brevis (big toe)	Cuboid	Base of first phalanx of big toe	Flexes big toe
Flexor longus hallucis (big toe)	Shaft of fibula	Last phalanx of big toe	Flexes toes
Gastrocnemius inner and outer head	Two heads above condyles of femur	Os calcis	Extends foot
Gemellus superior gracilis	Spine and tuberosity of ischium and ramus of pubes	Great trochanter upper and inner part of tibia	Flexes and draws leg inward
Gluteus maximus	Back of illium behind superior line of sacrum and coccyx	Fascia and below great trochanter	Extends and draws thigh outward
Gluteus medius " minimus	Ilium between superior and middle lines	Oblique line of great trochanter	Draws thigh outward and rotates leg
Ilio-tibial band	Conjoined flattened tendon of gluteus maximus tensor fascia femoris	External tuberosity of tibia	Supports knee joint in extension
Iliacus	Iliac fossa and base of sacrum	Below lesser trochanter	Flexes and rotates thigh outward
Ilio-psoas	Radius and transverse process of last dorsal and all lumbar vertebra	Lesser trochanter of femur	Flexes and rotates thigh outward
Lubricals (four)	Tendons of long flexor	Base of first phalanges	Flexes toes and gathers them together
Obturator externus and gemelli	Outside of obturator membrane and bony margin	Digital fossa of femur	External rotator of thigh

NAME OF MUSCLE	ORIGIN	INSERTION	ACTION
Obturator internus	Inside of obturator membrane and bony margin	Top of great trochanter	External rotator of thigh
Pectineus	Ilio-pectineal line and body of pubes	Below lesser trochanter	Flexes thigh on pelvis and rotates outward
Peroneus brevis	Outside of shaft of fibula	Base of fifth metatarsal	Extends ankle
Peroneus longus	Head and outside of shaft of fibula	Base of metatarsus of big toe	Extends ankle
Peroneus tertius	Outside of shaft of fibula	Base of fifth metatarsal	Extends ankle
Piriformis	Front of sacrum through great sciatic notch	Top of great trochanter	Extends and rotates thigh
Plantar interossei (three)	Under surface of metatarsal	Back of first phalanges	Draws toe toward middle line of 2nd. toe
Plantaris	Above outer condyle of femur	Os-calcis	Extends foot with tendons of Achilles
Popliteus	Outside of external condyle of femur	Tibia above oblique line	Flexes leg
Psoas major	Bodies and transverse processes of last dorsal and all lumbar vertebrae	Lesser trochanter of femur	Flexes and rotates thigh outward
Psoas minor	Bodies of last dorsal and first lumbar vertebrae	Iliac fascia	Flexes and rotates thigh outward
Quadratus femoris	Tuberosity of ischium	Quadrate line of femur	Extends and rotates thigh
Rectus femoris	Anterior inferior spine and top of acetabulum	Patella	Extensor of leg
Sartorius	Anterior superior spine of ilium	Upper and inner part of tibia	Flexes and crosses legs
Semi-tendinosus	Tuberosity of ischium	Upper and inner part of tibia	Flexes leg
Semi-membranosus	Tuberosity of ischium	Back of inner tuberosity of tibia	Flexes leg, rotates inward
Soleus	Shaft of fibula and oblique line of tibia	Os-calcis	Extends foot with tendon of Achilles
Superior gemellus and inferior	Spine of ischium	Great trochanter	External rotator of thigh
Tendo Achilles	Tendon of the muscle of the calf	Os-calcis	Lifts heel in walking
Tensor fascia femoris	Anterior extremity of iliac crest	Front of great trochanter of femur	Helps lift leg outward
Tibialis anticus	Outside of head and shaft of tibia	Internal cuneiform and first metatarsal	Flexes ankle and inverts foot
Tibialis posterior	Back of tibia and fibula	Sole of foot, navicular, cuneiform and metatarsal bones	Extends foot
Transversalis pedis	Head of metatarsal	First phalanx of great toe	Brings great toe towards middle line
Vastus externus	External lip of rough line of femur and base of great trochanter	Patella	Extends leg
Vastus internus	Back and inner side of tibia	Patella	Extends leg

Muscles of the torso

NAME OF MUSCLE	ORIGIN	INSERTION	ACTION
Erector spinae	Crest of ilium, back of sacrum and six lower ribs	Transverse process of four cervical and six upper thoracic ribs	Straightens spine and draws head back
External oblique	Eight lower ribs	Middle line and crest of ilium and pourparts ligament	Compresses viscera and flexes thorax
Infra spinatus	Infraspinous fossa	Great tuberosity of humerus	External rotator of humerus
Intercostal and two external intercostal	Inner lip of lower border of ribs, and outer lip second of ribs	Upper border of ribs	Draws ribs together when exhaling two when inhaling
Internal oblique	Pourparts ligament crest of ilium and lumbar fascia	Middle line and crest of pubes plus four lower ribs	Compresses viscera and flexes thorax
Latissimus dorsi	Spinal processes of six lower dorsal, lumbar vertebrae and crest of ilium	Bicepital groove of humerus	Draws arm back and down
Levator scapula	Transverse processes of four upper cervical vertebrae	Border of scapula below upper angle	Raises upper angle of scapula
Ligamentum Nuchae	Spinous processes of spine	Base of skull	By its elasticity it braces the spine
Pectoralis major	Clavicle sternum and costal cartilage	Anterior bicepital ridge of humerus	Draws arm down and across the chest
Pectoralis minor	Third, fourth and fifth rib	Coracoid process of scapula	Depresses point of shoulder
Rectus abdominis	Crest of pubis bone	Cartilage of fifth, sixth and seventh rib	Bends chest forward
Rhomboideus major	Spinal processes of five upper dorsal vertebrae	Border of scapula to lower angle	Draws scapula forward
Rhomboideus minor	Spinal process of last cervical and first dorsal	Border of scapula at lower margin	Draws scapula forward
Serratus magnus	Eight upper ribs	Posterior border of scapula	Draws shoulder blade and arm forward
Serratus posticus inferior	Spinal process of last two dorsal and first two lumbar vertebrae	Four lower ribs	Depresses ribs in expiration
Supra spinatus	Supra-spinous fossa of scapula	Great tuberosity of humerus	Holds head of humerus in socket
Teres major	Inferior angle of scapula	Posterior bicepital ridge of humerus	Draws arm down and back
Teres minor	Axillary border of scapula	Great tuberosity of humerus	Rotates laterally
Transversus abdominis	Pourparts ligament crest of ilium and six lower ribs	Middle line and crest of pubic bone	Compresses viscera and flexes thorax
Trapezius	Superior line of occipital, all spinous processes to twelfth dorsal vertebra	Clavicle and spine of scapula	Draws head back and shoulders together

The Spine. The amount of movement between the vertebrae is very limited yet the total range of movement reached is considerable. Flexion forward and backward is freer and most of the action occurs in the neck and the lumbar region. The lumbar vertebrae are larger than the others and have more space between them thus allowing freer movement.

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